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North Korean People's Air Force at War: Part 10
Iranian F-7 AirGuard: The Forced Alternative
The Peru-Ecuador Border War: 1941
Chilean Junkers F13, A20, & R42

vol. 37 no.4 (148)

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In this 1993 formation shot, these IRIAF F-7s are still in their delivery camouflage. In the foreground aircraft is 3-7507, with 3-7514 in the middle and 3-7503 in the background. The F7N serial prefix is 3-75XX while the two seat FT-7N is 3-77XX. [IRIAF]



The circled number '5' on the tail identifies this single seat F-7N to be based at TFB-5 Omidieh. As a security measure, the serial number on the tail and nose are covered during open house static displays.



FT-7N 3-7716 in its original delivery colors. (M. Razzazan)



FT-7N 3-7718 in smart demonstration colors. Only two FT-7Ns are painted in this livery. [Shahram (Shary)]

SMALL AIR FORCES OBSERVER

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COVER COMMENTS: Released by the IRIAF, this impressive line up of F-7N and FT-7Ns at Omidiyeh TAF-5, the last digits of serial numbers are retouched to prevent airframe identification.

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AUSTRIA

ÖFH NACHRICHTEN (Österreichische Flugzug Historiker, Pfenninggeldf 18/2/14, A-1160 Wien. Write for free sample.

4/13 (44 pages) Color photos: RAF Ju 188, Austria Eurofighter '7L-WC' & C-130K '8T-CC'. "Karl Banfield: Ein Pioneer der kuk Militärfliegerei" 8 pages inc. 8 photos. "Stanislaus Nazarkiewicz: leetster polnischer kuk Pilot" 4 pages inc. 5 photos.

FRANCE

AVIONS: Toute l'Aeronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 71 euro for 6 issues). Website: www.avions-bateaux.com. E-mail: contact@avions-bateaux.com.

#195 Septembre/Octobre 2013 (96 pages) "Des Hurricane de la RAF á Murmansk" 25 pages inc. 55 photos, 4

color profiles, and 2 maps. "Quand un Lévrier fait tomber Mangin de cheval" 5 pages inc. 10 photos (Spad 13). "Martin WB-57F" 21 pages inc. 43 photos. "Le capitaine Coutaud et le Bloch 155 n° 702" 4 pages inc. 4 photos and on color profile. "Le Vought OS2U Kingfisher (1)" 20 pages inc. 42 photos and 9 color profiles. "Maurice Bon, un des premiers du Normandie Niemen (fin)" 14 pages inc. 21 photos and 2 maps. "Pionniers: Le Canard du Lt Blard" one pages inc. 3 photos.

Novembre/Décembre 2013 (96 pages) "Le Vought OS2U Kingfisher" 27 pages inc. 59 photos and 11 color profiles (all USN). "Claude Raoul-Duval: Pilot de la France Libre" 14 pages inc. 22 photos and one color profile (Hurricane w/ Cross of Lorraine). "La Croisiere Aerienne en Afrique 1933" The flight of 30 Potez 25 TOE across French North Africa: 28 pages inc. 34 photos, one map, one color

4-view, and 3 color profiles. "Retour sur Maichel Coiffard" 12 pages inc. 27 photos and 3 color profiles [Ni 24bis (2) and Spad 13]. "Pioniers: Le Voisin de Course de Métrot" one pages inc. 3 photos.

GERMANY

FLIEGER REVUE X (Verlag Fliegerrevue, Herrn Detlef Billig, Oraniendamm 48, D-13469 Berlin. 4 issues per year, \$66 surface. Payment by check drawn on German bank)

#43 (114 pages) "Gustav Tweer" 8 pages on pioneer aircraft designer inc. 14 photos (one with landing gear on bottom and top). "Das russische Project 'Sweno'" 12 pages on Russian piggy-back aircraft inc. 24 photos. "Focke-Achgelis Fa 223" 12 pages on WW2 heavy-lift helicopter inc. 28 photos, 4

(Continued on page 120)

The Korean People's Air Force

in the Fatherland Liberation War

Part 10: Returning to Combat

Douglas C. Dildy

[Author's Note: The author wishes to thank the members of SAFCH for their continued interest in this ongoing study of the North Korean AF's participation in the Korean War – and for your patience in waiting for the series to resume. This past year was one of severe trials during which my wife faced a life-threatening disease and had to undergo treatment at the Mayo Clinic. Thankfully, she has recovered and the disease is in remission, allowing us to return, more or less, to our normal lives – grandchildren and writing military aviation history.]

Because the KPAF's wartime experience is so closely linked with the Chinese PLAAF's control (via the 1st United Air Army or 1st UAA) of Communist air operations over northern Korea, as well as the Soviets' participation in them, a brief discussion of these subjects is warranted to provide the framework for describing the KPAF's combat operations during the latter half of the Korean War. During this period, Soviet air operations, while still present, were much more limited and began diminishing steadily as Stalin sought to exit from active participation in the war.

The 1st UAA returns to combat

According to the PLAAF official history, June 1952 divides the two phases of the Chinese air force's involvement in the Korean War. From September 1951 until June 11, when Mao ordered a "stand-down" and a critical review of the first six months of combat operations, is considered "the learning period". There were three disappointments during the initial phase: First, the fact that the airfield construction program in North Korea was defeated by the constant FEAF bombing attacks of the new airfield sites, even the ones within the effective range of the MiG-15s operating from the Dandong complex of airfields. Second, due the lack of airfields closer to the front lines – and the horrific failure of the Taehwa-do raid – the PLAAF was unable to provide any direct support for the CVPA's ground forces at the front. Finally, while this learning period provided the desired combat experience for the fighter force, allowing increasingly independent operations (from the Soviet command and units), the cost in pilots was excessively high, leading to the "stand down" and operational review and assessment. (Note 1)

When the PLAAF resumed operations in July, it began the second phase of its Korean War experience, "conducting increasingly independent operations" separate from the collocated Soviet MiG-15 units. As commander of the CVPAF, between 2-10 July Lui Zhen was replaced by General Nie Fengzhi, air commander in the East China Military Region (and former head of the 1st UAA Bomber Command), bringing with him to Dandong some 558

headquarters staff and command post personnel to direct resumed combat operations.

Accepting the fact that the armistice talks at Panmunjom were stalled (on the issue of POW repatriation) and believing that the war would continue beyond 1952, the PLAAF's policy was to maintain five FADs – plus the KPAF's 1st Fighter Air Division (FAD) – on the "front lines" along the Yalu River, (Note 2) with two others in reserve at Shenyang and Liaoyang, rotating them every four to six months.

Sabres Dominate MiG Alley

Meanwhile the Soviets were also experiencing severe problems. The Russians' two newly-minted PVO-Strany fighter divisions (97th and 190th IADs) proved to be unworthy successors to the recently-departed elite V-VS units (303rd and 324th IADs). With few combat veterans, very little experience flying the MiG-15, and trained to intercept individual bombers instead of battling groups of enemy fighters in large, swirling dogfights, by June one IAD so badly beaten it had to be withdrawn and the other was demoralized and down to approximately 50 per cent effectiveness.

In addition to their inadequate training and immense inexperience, the Soviets were soon overwhelmed by recent changes in the USAF's F-86 force. First was the activation of a second Sabre unit – the 51st Fighter Interceptor Group (51st FIG) commanded by 28-victory WWII ace Colonel Francis "Gabby" Gabreski – bringing to 127 the number of F-86s in Korea. Second, FEAF HQ relaxed the rule forbidding flight into Chinese airspace to allow "hot pursuit" north of the Yalu as long as the pursuer was in a position to complete the destruction of the enemy fighter. Gabreski quickly took advantage of this exception, and routinely sent his Sabres north of the river to patrol above (or "hawk") the Andong airfields, ready to pounce on any attempts to take-off or fly the final approach for landing.

The Soviets called these "airfield blockading" [blokirovaniye] operations. The inexperienced MiG pilots were at a serious disadvantage and the MiG's low-altitude performance was inferior to the Sabre's, resulting in

alarming losses. From February through April the two Soviet IADs reported having “lost 48 MiG-15bis aircraft and 16 pilots, of which 23 aircraft and seven pilots, that is, about 50%, were shot down by American fighters over our airfields.” (Note 3) Additionally, this demoralizing situation caused “a significant incapacitation of personnel due to illness is being noted in connection with the great stress in combat work.”

Consequently, on 5 July the 97th IAD was withdrawn to the Anshan and Liaoying rear area bases, being replaced at Langtao by the more experienced (and prestigious) 133rd “Baranovichy Red Banner” IAD. For almost four weeks, the decimated 97th IAD was to fly missions “protecting the takeoffs and landings of our fighter aviation divisions in the area of Dandong” until it could be replaced by the 216th IAD from the Baku Air Defense Region on 30 July. Leaving its remaining MiGs behind, the disgraced unit was transferred to Baku “without materiel, maintenance and support subunits” for retraining and Colonel Aleksandr Shevtsov was relieved of his command.

While Gabreski’s pilots were eventually caught and chastised for exceeding the intent of the “hot pursuit” exception, FEAF HQ recognized the sense and soundness of “Gabby’s” tactics and – with appropriate Pentagon approval – on June 23 (while the PLAAF units were in the midst of their “standdown”) ordered the same stratagem used to cover the massive USAF/USN strike flown against the critical Supung hydro-electric powerplant, right on the Yalu River, about 30 miles upstream of Andong. When built by the Japanese before WW2, Supung was the fourth largest hydroelectric plant in the world, producing 300,000KW of electricity, half of which went to Chinese industries in Manchuria. This was one of the sites the Soviets’ 64th IAK was specifically ordered to protect.

Sixty Sabres swept ahead of the first strike group – 35 USN Skyraiders (VAs 65, 115, and 195) with 36 F9F Panthers (VFs 24, 112, and 191) for flak suppression – 20 of them crossing the Yalu to “hawk” the four airfields now comprising the Antung Complex. (Note 4) Consequently, no MiGs took off from these airfields, and with the rear area bases “socked in” with bad weather, grounding the “airfield protection” MiG regiments there, the following 79 F-84Es (49th and 136th FBGs) and 45 F-80Cs (8th FBG) were able to attack with complete impunity, escorted by 24 more F-86s. (Note 5) At the cost of two USN aircraft damaged, the massive strike was devastatingly effective. (Note 6)

Ten days later, the war’s decisive encounter between USAF Sabres and Soviet MiGs occurred – as fate would have it – on the American Independence Day, the 4th of July. The 190th IAD launched 50 MiG-15bis attempting to counter a pre-strike sweep, but when the 70 Thunderjets (49th FBG and 58th FBG—the recently redesignated 136th FBG) showed up on radar – intending to bomb the

North Korean Military Academy at Sakchu – GCI vectored the 494th IAP to intercept them. The Sabres engaged with an altitude advantage and, according to Soviet records, eleven MiG-15s were shot down, marking the single largest daily loss during the Russians’ participation in the war. Two Sabres were lost in return, one pilot being KIA. (Note 7)

By the end of July 190th IAD had lost 47 MiGs and the division’s pilot “were near the breaking point and had begun to evade combat duty.” Of the 120 pilots normally assigned to a PVO-Strany division, only 48 remained “combat ready”. Most of the rest were medically grounded, the majority for chronic “battle fatigue”. Consequently, the 190th IAD was also withdrawn from operations; being replaced by the 32nd IAD at the end of August.

KPAF MiG-15 Operations – May-October 1952

It is against the backdrop of alarming MiG-15 losses experienced by both Soviet and Chinese air forces that KPAF jet fighter operations, from May through the end of 1952, should be viewed and understood. By the end of March, USAF “Suede” signals intelligence (SIGINT) intercepts confirmed that the 1st FAD had one regiment (2nd FAR) deployed to Langtao airfield, under the command of Colonel Tae Kuk-Sung, with 26 MiG-15s (Note 8) and another (probably designated the 4th FAR) based at Anshan, with 24 MiG-15s led by Yang Tu Hi.

With the passing of the spring rains, the weather allowed more active operations and the 1st FAD commander, Brigadier General Kang Dae-Yong, who commonly controlled 2nd FAR combat operations from the 1st UAA command post at Langtao, became adamant about breaking the F-86s’ “airfield blockading” operations. (Note 9) Early each morning, before sunrise on the clear days in May and June, two or four Sabres would fly to the mouth of the Yalu River and orbit (Combat Air Patrol, or CAP) there in the contrail level (36,000 to 42,000 feet – 10,973-12,802m) so that they would be seen “hawking” the three Andong airfields in what the North Korean pilots assumed “was meant to lure us up to fight.” One June morning Kang ordered Tae Kuk-Sung to “go after them” with the 2nd FAR’s 24 MiG-15s.

According to (now) Senior Lieutenant No Kum-Sok, “we took off in the semi-darkness of dawn, gained altitude while flying north in Manchuria, and [then] flew toward the contrails south of the river.” By then the F-86s were running low on fuel and headed south, the 24 MiG-15s following their contrails towards Seoul. Passing the Chongchon River the MiGs, too, became low on fuel – “barely enough to return and land... We gradually descended, heading north, where fresh squadrons of F-86s awaited us near the Yalu River and jumped us from all quarters, even from above.”

“Some MiG pilots sat helplessly in their cockpits until the F-86s shot them to pieces, taking no evasive action... preferring to rely on the armored plate behind the seat. Two of them bailed out and survived. One MiG pilot made an abrupt and steep climbing maneuver and was shot in the head by a pursuing F-86. Three MiG-15s went down near the airfield on that fateful summer day, and most of the others were shot up.”

The defeat was the second major reverse suffered by the 1st FAD at the hands of the USAF Sabres – losing seven MiG-15s in two engagements that were directed by General Kang – and it cost him his job. No relates that around 3/4 July Kang was “relieved of all duties, demoted to ‘nonperson,’ and discharged from the People’s Army... In a militaristic and warmongering country like North Korea, the General’s status had plummeted to that of a beggar.”

Kang was replaced by Colonel Kim Hi-Kiung, a veteran KPAF fighter pilot who had flown Yak-9Ps with the 56th GFAR from Heijo air base at Pyongyang in 1949-50. In fact, during the USN’s famous raid in July 1950 Kim was one of two Yak-9P pilots (Tae Kuk-Sung was the other) to get airborne to try and defend the KPAF’s “home field” from carrier-based Corsairs and Skyraiders (see SAFO #138). Both were shot down, bailed out and survived, but not before Kim could fictitiously claim to have shot down three of the attackers.

Kim had different ideas about how to “get back at” the Sabres that so brazenly “hawked” the Andong airfields, and he ordered Tae to withdraw the 2nd FAR’s 3rd Battalion to Anshan for training for a special mission. When the eight MiG-15s arrived at Anshan in late June, their pilots were gathered into a briefing room and addressed by Tae. “Much of the Sabre strength is at Kimpo,” he said. “We are here to train you to destroy the Sabres before they get into the air.” For six weeks the MiG-15 pilots trained to strafe ground targets. According to No, “We practiced by strafing ground targets with live ammunition, buzzing in line, one after another. This promised to be an effective tactic, and we hoped to do on the ground what we could not do in the air. Unfortunately, fragments from our cannon rounds, which ricocheted off the ground damaged a few MiGs. We were soon ready to perform the mission, flying from Dandong, but, the word to attack never came. At the last minute, the mission to Kimpo was cancelled because the Russian high command... feared the Americans would retaliate by strafing MiGs in Manchuria.”

Instead the 1st FAD was assigned an entirely different mission, one that the Chinese and KPAF leadership believed would have much greater chances of success. For months, flying from two to four aircraft carriers off the east coast, USN aircraft had been operating over the eastern part of North Korea with near total impunity. Primarily these were WW2 Vought F4U-4 Corsairs and

the newer, more powerful propeller-driven Douglas AD-4 Skyraiders, but by 1 September, even the jet-powered Grumman F9F-2 Panther began to fly only ground attack missions. The Panther was a heavy, underpowered, straight-wing first-generation jet fighter that the MiG-15s should be able to beat handily, so – unlike battling Sabres in MiG Alley – fighter sweeps to the east against USN carrier aircraft promised great rewards for little risk.

Additionally, since the KPAF expanded its radar and ground controlled intercept (GCI) network, installing radar units at Pyongyang’s Mirim small sod airfield and Sariwon connected by a landline to provide a more comprehensive radar “picture” of air operations over North Korea, it was thought that the chances of successfully locating and engaging the USN attack aircraft were improved. So for two months (mid-August into October), the “special attack group” flew fighter sweeps to the east, usually to the huge semi-circular Wonsan Bay. Normally one four-ship would fly at high altitude to cover the other (called the “strike group”) which came in lower to locate and engage the American naval ground attack aircraft.

Finally, on 4 October, in an attack that appeared to be under “positive GCI control prior to and during the attack” four MiG-15s engaged a formation of seven F4Us that had been pounding Yonpo airfield, attempting to discourage the KPAF’s efforts to restore the former Il-10 base to operation. The Corsairs (VF-884/USS Kearsarge) were headed back to their carrier and were completely surprised as the speeding jets slashed through their formation, firing their 23mm and 37mm cannon. Before the Corsair pilots could react, one of them was shot down by Captain Kang Jung-Duk and went into a steep dive into the sea, killing Lt Eugene F. Johnson. (Note 10) The attack lasted only 90 seconds before the MiGs turned northwards and egressed unscathed.

Three days later the KPAF MiGs repeated their fighter sweeps engaging USN attack aircraft three times. On the first occasion four MiG-15s attacked a flight of four Corsairs near Hungnam in an inconclusive engagement. On a second mission to the same area it appears that the four-ship “strike group” split with one pair attacking eight Skyraiders – the ADs returned fire but “no damage was inflicted by either side and the MiGs retired to the west.” The others attacked four F4Us (VF-193/USS Princeton) just south of Hungnam, “destroying one F4U”. Ensign John R. Shaughnessy bailed out and was rescued by a destroyer (USS Boyd, DD-544) but died on board from his injuries. (Note 11)

With these victories on their record on 12 October the 1st FAD was withdrawn, their 34 MiG-15s flying from Langtao to Anshan. During their short stay, the pilots who had flown 50 or more combat missions were awarded the “Gold Medal” – the KPAF equivalent of the USAF and RAF Distinguished Flying Cross – in a “grand” ceremony “with the whole regiment at attention on the parade ground

while a band played and senior officers made requisite patriotic speeches.”

A few days later Colonel Kim received word that new MiG-15bis fighters had arrived from the Soviet Union and was ordered to ferry his remaining, very tired, older model MiGs to Yanji. There these were handed over to the newly formed 3rd FAD, whose pilots had just soloed the Yak-11 advanced trainer and were ready to begin their training on jet fighters, before the pilots of the 1st FAD departed by train to Kuancheng (Changchun), China, to accept their new mounts.

Meanwhile, back at “Sunny Joe”

Sinuiju – known as “Sunny Joe” to the American fighter pilots – was the home to the KPAF’s HQ and its only major combat unit based on Korean soil. In preparation for the Chinese “Third Phase Offensive”, in January 1951 the revitalized 1st Combined Air Division (formerly the 55th CAD, consisting of the 56th GFAR and 57th AAR; see Note 12) deployed to Sinuiju, conducting limited, sporadic operations, particularly in support of the Chinese-led amphibious operations capturing the islands off the northwest coast of Korea. (See SAFO #142, #143, and #144)

Around October that year (1951), with the activation of the MiG-15-equipped 1st FAD, the division’s designation was changed to the 10th CAD “thus eliminating confusion due to having identical numbers”. Two months later the division was joined by the La-9-equipped 1st FAR. With the completion of training of the La-9-equipped 2nd FAD at Yanji and the beginning of training of a group of new pilots to form the MiG-15-equipped 3rd FAD, there was no further need for La-9 instructors. By the end of 1951 the Yanji-based 1st FAR became an operational combat unit, deploying 21 La-9s to Fengcheng for ground-attack training with the Il-10-equipped 11th AAD before arriving at Sinuiju. Because the 10th CAD now consisted primarily of La-9s (1st FAR and 56th GFAR) and because of its series of re-designations, to reduce confusion “it was colloquially known simply as the ‘LA-division’ (i.e., ‘Lavochkin division’)”, especially in KPAF message traffic.

Additionally, according to USAF “Suede” SIGINT intercepts, the 2nd FAD deployed its first “14 LA-9 flight leaders” to Sinuiju on/before 12 January when the headquarters reported their arrival. Additional “Suede” reports indicate that, after the 1st FAD’s MiG-15s departed Uiju on 15 December 1951, the airfield was repaired and used by KPAF La-9s, probably becoming the home base for the newly arriving 2nd FAD.

The arrival of the La-9 units allowed the veteran 56th GFAR to be withdrawn at the end of January 1952, via Anshan to the new Dongfeng airfield near Tonghua (about 120 miles/193km northeast of Shenyang). In June the “Guards Taejon Regiment” returned to Anshan, where it converted to the La-11 and began night-fighter training

with the Soviet 351st OIAP. (The development of the KPAF’s night-fighter capabilities will be covered in Part 11 of this series.) While the 56th GFAR is known to have retained its few remaining Yak-9Ps, it is believed that the unit left its La-9s at Sinuiju/Uiju for the 1st FAR and 2nd FADs.

Sinuiju was also home to the KPAF’s veteran ground-attack regiment, the 57th AAR. Very few operations by the unit’s Il-10 “Shturmoviki” had been observed since the disastrous attempt at raiding Sinmi-do Island the previous summer (See SAFO #143), but there were some indications that Maj.Gen. Wang Yong was considering expanding the type’s role, especially in the eastern sector of the combat zone. On 12 March, Wonsan airfield, on Korea’s east coast, was discovered to have several unidentified single-engine aircraft parked on the ramp and some 2,800 feet (853m) of its runway was undamaged and useable. Six weeks later (21 April) USN F4U Corsairs, flying inland to direct naval gunfire bombardment, identified an Il-10 on the field and immediately attacked, strafing and destroying the Ilyushin “Shturmovik”.

The next day a pair of USAF F-86 Sabres from Gabreski’s 51st FIG made a similar strafing attack on Sinuiju airfield, Maj Elmer W. Harris and Capt Iven C. Kincheloe being credited with destroying two “Yak-9s”. (Note 13) Returning two weeks later, on 4 May, the two 25th FIS pilots destroyed another five “Yak-9s” while 23 other Sabres flew “top cover”. Spotting two single-engine propeller aircraft flying near Sinuiju, two 16th FIS Sabres dove to attack, Capt. Richard H. Schoeneman leading 1Lt James A. McCully in shooting down both of them. Schoeneman was credited with an Il-10 destroyed and McCully with a “Yak-3”. All things considered, this was actually more likely another Il-10.

The next month it was the 4th FIG’s turn to engage the KPAF’s Sinuiju-based units. On 20 June, Colonel Royal N. Baker, the new group commander and a WW2-veteran fighter pilot with 3.5 “kills” to his credit, led a fighter sweep of “MiG Alley” with four four-ship formations from the 336th FIS. Spotting four propeller-driven fighters at lower altitudes, Baker led his four-ship down to engage, he and wingman 1Lt George Wood shooting down two La-9s on the first pass. The other two went into defensive turns and try as they might, Baker and his wingmen could not get their speeding Sabres inside the Lavochkins’ tight turning circles long enough to score a telling burst.

Hearing the mêlée on the radio Capt. Frederick C. Blesse, led his four-ship (334th FIS) to the fight and from 18,000ft (5,486m) altitude watched the spectacle of the F-86s “coming in extremely fast, taking a couple of quick shots, then chandelling up another 5,000 feet (1524m) to await their next turn. One of the enemy pilots was playing them like a piano, knowing exactly what each F-86 was going to do. Just before each Sabre was within firing range, the La-9 would go into a tight little turn. The ’86

pilot's shots were nowhere near the mark, and they would zoom back up."

Finally Blesse asked if he could make a pass and "the frustrated Col. Baker approved." Leaving his three wingmen to "give me a little cover", Blesse "peeled off... Down almost in the weeds, I [pulled up at him and] popped my speedbrakes, pulled the throttle all the way back to idle and started coming up at him. He saw me and put the Lavochkin into that real tight turn but I just kept going up. He rolled out just like he had been doing, thinking he was perfectly safe. I rolled over, came up about 400 feet (150m) behind him, constantly closing the gap..."

"Firing on him, I didn't want to overshoot. He would have been very dangerous, since he had better maneuvering performance, better turn capability and better everything except acceleration. As I slid up on him, there

were several hits and the La-9 blew up with me about 200 feet (60m) underneath... [and] went into a steep turn and crashed." Meanwhile, the fourth La-9 escaped to tell the story.

This was the last known operation by the KPAF's fighter and ground attack units from Sinuiju and Uiju airfields for several months. On 15 October, the Chinese reported that the North Koreans evacuated "69 conventional aircraft from combat airfields in the Yalu River complex, including Sinuiju, to airfields in the Manchurian interior." The departure of the 2nd FAD and 10th CAD, coupled with the withdrawal of the 1st FAD from Langtao three days prior "practically empt[ied] the airfields in the Yalu River complex of North Korean air units."

Doug. Dildy (SAFCH #844), USA.

End Notes

1. By the end of May 1952, all nine operational fighter divisions of the PLAAF had seen combat in Korea skies and some 447 Chinese pilots now had "combat time" in their logbooks.

2. By the time combat operations resumed in July 1952, the 3rd FAD was once again deployed to Langtao, supported by the 6th, 12th, 17th and 18th FADs at Dadonggou, Dagushan and Fengcheng airfields. See Appendix Six.

3. During this period, the USAF lost nine F-86s (including one due to fuel exhaustion) in combat with MiG-15s, with three pilots being killed. These were LtCol George A. Davis (334th FIS commander, shot down by PLAAF pilot Zhang Jihui, 4th FAD/12th FAR), 1Lt James D. Carey (334th FIS; MIA) and 1Lt James D. Arnold (16th FIS; KIA). Two other pilots – 1Lt Michael E. DeArmond and 1Lt Charles R. Spath (both from 335th FIS) – ejected to become POWs. Eleven more F-86s were lost in accidents due to engine and hydraulic failures, weather, fuel starvation and other causes not attributable to enemy action.

4. The "Antung Complex" now included nearby Fengcheng airfield (called Dapu by the Russians), at which, during the Supung strike, was based the Soviet PVO 256th IAP.

5. The nearly 200 strikers (70 USN and 124 USAF) eluded the Soviet GCI network completely by ingressing from the northeast, flying at low level down the Yalu River valley, their approach masked from the network's six radar sites

by the mountains that defined the valley. The 64th IAK/KP was not aware of the strike until the local AA unit (87th ZAD) reported it was under attack.

6. For example, the Polish Embassy in Pyongyang reported, "The bombing of four large hydro-electric power stations on Yaluchan River (Chinese-Korean border area) on 23 June of this year deprived all of North Korea and a part of North-Eastern China of electric energy, that is, industry stopped almost completely." Additionally, the destruction of the Supung hydroelectric plant resulted in loss of power to the 1st UAA's GCI/radar network for three days. Prodigious repair efforts resulted in the return to electricity production at pre-bombing levels on 23 August.

7. Lost in this action were two F-86Es from the 335th FIS (50-683 and 51-2769) that were damaged by MiG-15 gunfire and flew to Cho-do Island for ejection. One pilot was rescued but 1Lt Austin W. Beetle, Jr., was killed.

8. By July, two of the 2nd FAR MiG-15s were lost in weather-related accidents. Lieutenant Hu Bak-Yong became disoriented in cloud and dived into the ground, killing him. Unable to find his airfield, Major Lee Choon-Tuk attempted to divert to Darien but crashed on final, probably from fuel exhaustion; luckily he was unhurt.

9. The unauthorized F-86 operations caused the loss of at least one KPAF MiG-15. Capt Park Chun-Hak was shot down "in the traffic pattern" at Langtao and crash-landed on the dirt strip

alongside the runway, hitting his head on the canopy bow and gunsight, causing a severe concussion. Park was admitted to the Soviet hospital in Harbin, but he never fully recovered and was medically discharged sometime afterwards.

10. Lt Eugene F. Johnson was flying F4U-4 BuNo 80798, side number "412".

11. Ens John R. Shaughnessy was flying F4U-4 BuNo 96770, side number "311B". In this instance, the name of the victorious KPAF MiG-15 pilot is unknown.

12. Having begun its existence as the 55th CAD (1949-1950), this unit was redesignated the 1st CAD while it was rebuilding at Yanji during October-December 1950.

13. Considering that the 56th GFAR and its Yak-9Ps were now based at Tungfeng, and Sinuiju had only La-9s and Il-10s, the destroyed aircraft were most likely one of these two types. If the strafing pilots used their targets' "pointed" noses (housing an in-line engine) as the key identification feature, rather than recognizing the La-9's radial engine "rounded" nose, then the destroyed aircraft were probably Il-10s. Although Harris and Kincheleo were initially awarded credit for destroying these seven enemy aircraft, these "kills" – along with all other strafing "victories" during the Korean War – were deleted from the official tally during the USAF's 1988 review and revision of Korean War Aerial Victory Credits.

Appendix Six

1st Unified Air Army

Order of Battle – July 1952

Commander – General Nie Fengzhi, PLAAF
Vice Commander – Major General Wang Yong, KPAF

Air Defense Command

Commander – General Duan Suquan, PLAAF

PLAAF Contribution:

3 rd Fighter Air Division	36 MiG-15	Langtao, PRC beginning 13 Mar 52
7 th Fighter Air Regiment		
9 th Fighter Air Regiment		
6 th Fighter Air Division	38 MiG-15	Dagushan, PRC beginning 20 May 52
16 th Fighter Air Regiment		
18 th Fighter Air Regiment		
12 th Fighter Air Division	41 MiG-15	Fengcheng, PRC beginning 6 July 52
49 th Fighter Air Regiment		
51 st Fighter Air Regiment		
17 th Fighter Air Division	40 MiG-15	Dadonggou, PRC beginning 17 Mar 52
34 th Fighter Air Regiment		
36 th Fighter Air Regiment		
18 th Fighter Air Division	40 MiG-15	Dagushan, PRC beginning 22 May 52
52 nd Fighter Air Regiment		
54 th Fighter Air Regiment		

KPAF Contribution:

1 st Fighter Aviation Division – Colonel Kim Hi-Kiung		
2 nd Fighter Aviation Regiment – Col. Tae Kuk-Sung	24 MiG-15	Langtao, PRC
4 th Fighter Aviation Regiment – Col. Yang Tu-Hi	23 MiG-15	Anshan, PRC

Associated Soviet PVO-Strany Units

64 th Fighter Aviation Corps – Lieutenant General Georgiy A. Lobov, HSU		Shenyang, PRC
133rd Fighter Aviation Division – Colonel V. I. Komarov		
147 th Guards Special Purpose Fighter Aviation Regiment		Langtao, PRC
415 th Fighter Aviation Regiment		Langtao, PRC
726 th Fighter Aviation Regiment		Fengcheng, PRC
190 th Fighter Aviation Division – Colonel Kornilov		
256 th Fighter Aviation Regiment		Fengcheng, PRC
494 th Fighter Aviation Regiment		Dadonggao, PRC
821 st Fighter Aviation Regiment		Dadonggao, PRC
97 th Fighter Aviation Division – Colonel Aleksandr Shevtsov		
16 th Fighter Aviation Regiment		Shenyang-West, PRC
148 th Guards Fighter Aviation Regiment		Shenyang-West, PRC

Night Fighter Unit:

351 st Indep. Fighter Aviation Regiment – LtCol I. Yefimov	35 MiG-15bis	Langtao, PRC
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Other KPAF Combat Units:

2 nd Fighter Aviation Division	approx. 40 La-9	Sinuiju, DPRK
Fighter Aviation Regiment designations not yet known		
10 th Combined Aviation Division – Brigadier General Li Fart		Sinuiju, DPRK
1 st Fighter Aviation Regiment	18 La-9	
57 th Assault Aviation Regiment	16 Il-10	
11 th Assault Aviation Division – Col. Kim Tal-Hion	36 Il-10; 4 Yak-11	Fengcheng, PRC
3 rd Night Bomber Regiment – Colonel Pak Den-Sik		
1 st Night Bomber Battalion	6 Po-2/5 Yak-18	Sariwon, DPRK
2 nd Night Bomber Battalion	7 Yak-18*	Sinuiju, DPRK
56 th Guards Fighter Aviation Regiment	16 La-11	Anshan, PRC
In training as night fighter unit	10 (maximum) Yak-9P	

* One USAF “Canoe” communications intercept by 6920th Security Group at Johnson AB, Japan, on 10 July 1952 reported “25... North Korean-pilot aircraft [were] observed in night training, including possible bombing exercises”. However, this number is inconsistent with other reports of night training flights made by Yak-18s flying from Sinuiju. It is possible that the collocated 1st FAR, whose La-9 pilots were also trained for night ground attack operations, participated in this “night-bombing exercise”, in which case the combination of the two units’ aircraft strength equates to the reported “25... North Korean-pilot aircraft”. (CIA Current Intelligence Digest [TS], 25 August 1952)

Iranian F-7 AirGuard

The forced alternative ...Made in China

Leon Manoucherians

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Background

China was granted a license by the Soviet Union to manufacture the MiG-21F-13 and its Tumanskii R-11F-300 engine in 1961, and a handful of Mikoyan-built aircraft were delivered to serve as a model. However, not all the necessary technical documents had been delivered by the time these two countries severed ties in 1962. Therefore J-6 (MiG-19) production was given a higher priority.

Eventually, a MiG-21-based Chinese prototype was constructed at Shenyang plant and first flew on 17 January 1966. It was powered by the Wopen WP-7, which was claimed to be an improved R-11F-300. Certificated for production in 1967, the initial batch of aircraft coming out of Shenyang was designated F-7A and was delivered to Albania and Tanzania.

Production was later transferred to Chengdu, where the basic aircraft received the new designation J-7I, while retaining the F-7 tag for export. Since then the Chinese Air Force received improved variants designated J-7II, J-7E, and J-7III.

Aircraft exported received designations such as the F-7B (for Egypt, Iraq, and Zimbabwe), F-7M, F-7P (for Pakistan), and F-7MB (for Bangladesh), F-7BS (for Sri Lanka), and F-7N for Iran. Designations of the two-seat trainer versions all started with FT-7.

The Iranian Order

According to official Chinese Military Modernization and Arms Proliferation (CMMAP) documents, the Chinese were planning to deliver no less than 166 F-7s to Iran and hoped that the deliveries might even go as far as 240. How many were exactly delivered remains unclear, but it is known that the first 15 F-7N and 5 FT-7N aircraft, out of a batch of 44 arrived in 1986 and entered service with the 51st TFS only several months after the end of the Iran-Iraq War. Therefore no Iranian F-7 ever participated in this conflict.

According to a 1995 CSIS report, Iran imported another 30 F-7s from People's Republic of China by mid-1993 out of a possible total order of 50-72 but did not intend to order any more. This seems to be the most logical estimate, since Iran must have realized that the F-7N, being a crude copy of the MiG-21, had poor ground attack

performance and limited air-to-air combat capability against the frontline fighters of any potential enemy. Iran has also found out, just like Pakistan, that the F-7 was a maintenance nightmare and very difficult to overhaul.

Some other sources believe that Iran also took delivery of over 50 F-6 fighters, which were Chinese copies of MiG-19 between 1987 and mid-1992. In addition, nearly 70 F-7s were supposedly in operation by early 1994. There are unconfirmed reports that Iranian F-7Ns were equipped with at least some Western avionics.

China also reportedly delivered 2,500 PL-2 and PL-2A air-to-air missiles (Chinese copies of the Soviet R-3 Atoll, which is a copy of the US AIM-9 Sidewinder) and PL-China also reportedly delivered 2,500 PL-2 and PL-2A air-to-air missiles (Chinese copies of the Soviet R-3 Atoll, which is a copy of the US AIM-9B Sidewinder) and PL-7 air-to-air missiles (Chinese copies of the French Matra R.550 Magic).

Despite what is usually reported in the West, the second batch of aircraft delivered in 1990 consisted of only 30-35 F-7s. Originally these were intended for IRGCAF to replace its abandoned F-6s, but the newly established force proved unable to operate these maintenance-intensive aircraft. Therefore by the end of 1989 all the single seat and two-seat F-7s were transferred to the IRIAF.

In addition, at least 27 F-7Ns out of the third batch of possibly up to 73 planes, were reported to have arrived in the period 1992-96.

With their wings detached, these aircraft were delivered from China to Iran via Pakistan by Iranian air force and Iran Air 747 cargo planes. However, known serials do not confirm delivery of any number close to 166 F-7s to Iran; in fact the IRIAF re-equipped only two former F-5E squadrons with F-7Ns.

According to some unconfirmed reports, most of the planes from the initial batch and some from subsequent deliveries were handed over to Sudan and Tanzania. In 1992 no less but 22 F-7s are known to have been transferred from Iran to Sudan. Another batch of some seven planes was supplied to Sudan in 1997, and at the same time several aircraft were given to Tanzania.

The F-7 Enters Service

During early years of service, attrition has been quite high, despite skillful efforts of the 51st TFW pilots who saved over a dozen aircraft that suffered mechanical mishaps while in flight.

In a post-war effort to rebuild the badly damaged Iranian air force, an order for 12 stored ex-East German air force MiG-21PFMs and 4 MiG-21Us to be operated by newly established IRGCAF was placed in 1988.

Two Iranian pilots who had completed F-6 training in North Korea were sent to East Germany for type transition and instructor pilot training. However, the delivery of Iranian order coincided with the reunification of East and West Germany in 1989, resulting in only two MiG-21U two-seat trainers being delivered to Iran, one of which is on static display at a military museum near Tehran airport.

The rest of the order was embargoed and 12 of them were confiscated in Italy during shipment, of which 11 were sent back to Germany and were eventually scrapped. One MiG-21PFM was retained in Italy and currently is on display in a fake IRIAF camouflage/serial, at a hillside aviation museum near Cerbaiola-Rimini.

Iranian F-7 pilots completed their transition flight training in China in 1989 and 1990. With the delivery of the first batch of the two-seat FT-7N trainers, the training program was continued in Iran. Their main task was to screen, select and train more pilots for the type.

The Aircraft

The F-7M, AirGuard appeared in 1984 as a greatly improved export version of J-7II. This variant has an extra pair of underwing pylons and a strengthened undercarriage and the pitot probe is relocated above the nose.

The F-7M variant features Western avionics, such as a GEC-Marconi Type 226 Skyraider ranging radar, a Type 956 HUDWAC Head up display, improved ECM and ECCM, a new air data computer, a weapons aiming computer, a radar altimeter, an IFF transponder and a multi-function secure communications.

The F-7N variant is based on the F-7M, but lacks most of the Western avionics and retains mostly Chinese avionics, such as the originally fitted SY-80 radar.

The IRIAF had planned to replace these Chinese radars with the more advanced and efficient FIAR (now Selex-Galileo) Grifo 7 radar with the help of the Chengdu Aircraft Co., but this was cancelled due to lack of necessary funds.

The computer-controlled variable conical center-body of the intake slides in and out to match the intake area to flight conditions and thrust demanded. The intake cone also houses the F-7's primitive ranging radar.

The aircraft has a strengthened windscreen and is compatible with the Chinese PL-7, American AIM-9J/P Sidewinder and French Matra R.550 AAMs.

The aircraft can carry up to a total of 5,511- lb (2,500 kg) of ordnance, including the following weapons:

Inner pylons: a pair of PL-2, PL-2A, PL-5B, PL-7 or Matra Magic R.550 air-to-air missiles, 57mm (18-round) or 90mm (7-round) rocket pods or up to 1,102 lb (500kg) of bombs.

Outer pylons: up to 330-lb (150 kg) of bombs, rocket pods or air-to-air missiles.

This loadout is augmented by a pair of NORINCO Type 30-1 belt-fed 30mm fixed forward firing cannons, with 60 rounds per gun, mounted in the wing roots.

Supersonic auxiliary fuel tanks can be carried on the outer pylons and under the fuselage.

Technical Problems

Due to various technical problems with the F-7M/N, it is enough to say that these planes have been viewed by many as a true catastrophe. Iranian pilots have never liked the aircraft and air force officials admitted that the purchase of the Chinese fighters was a mistake. A pilot revealed during an interview that he had survived three serious technical mishaps on three different F-7s on the same day within a total flying time of 15 minutes! Poor engine manufacturing quality and unreliable hydraulic and pneumatic systems have been the cause of numerous crashes, some with fatal results.

With its short range, poor avionics and limited ground attack capabilities, the F-7 is only useful as a point-defense interceptor if equipped with a capable air-to-air missile. However, they are considered to be good lead-in supersonic and weapons trainers.

It is also interesting to note that Iran only recently established a complete engine overhaul program for its F-7s. This reduces dependence on China or North Korea significantly.

Now that Iran has progressed to a level that it can perform complex airframe and engine overhauls, it is likely that technical problems have been solved to some extent. Therefore, if the overhauled F-7Ns are used in combination with other, more capable types of fighter aircraft and are equipped with better weapons (such as new versions of the R-73) with a data-link, even such primitive aircraft can fulfill useful point defense tasks. This is especially true in mountainous areas where a chance exists that these aircraft can approach enemy aircraft undetected to within visual range.

Bases and Units

Initially, Iranian F-7Ns were based at Ardestani (Omidyeh) TFB-5 near Aghajari.

The construction of TFB-5 started in 1975 with some assistance in its design by Israel, to accommodate three squadrons of F-5E/Fs which would be replaced by planned F-16A/B jets in 1980.

By 1977, only 50 per cent of construction was completed and therefore the original plan to have a fully operational air base by 1978 was slipped to as late as 1981.

The 1979 revolution practically put an end to the development of TFB-5. It was only after the conclusion of a deal with Chinese in July 1986, for the delivery of as many as 140 F-7N and FT-7N fighters, when the plans for the completion of TFB-5 reappeared.

Accordingly, a group of Chinese engineers oversaw construction of maintenance hangars, ground facilities, personnel housing and the completion of 8 (out of 20) remaining shelters..

With the delivery of the first and second batch of F-7N fighters, three fighter interceptor squadrons, 51st, 52nd and 53rd TFS was formed. Half of the two-seat FT-7N operational trainers were assigned to the flight academy 85th TFS at Babaie TFB-8 near Isfahan, serving as advanced, close air support and weapons trainers.

In 1992 the IRIAF declared the 51st, 52nd and 53rd TFS operational. However, following several crashes, the F-7 squadrons were disbanded in 1996 and TFB-5 was closed, pending its transfer to the air defense command (Gharagahe Padafand).

As a result all F-7N/FT-7Ns were transferred to TFB-8 Isfahan, where a higher standard of flight safety and operational procedures were in place. The base was also a major facility for overhaul of stored aircraft, where many grounded and damaged F-7s could be repaired and returned to service.

Since the Isfahan air base was already crowded with F-14s and F-5s, a decision was made to transfer all F-5s to TFB-4 Vahdati and TFB-2 Tabriz.

Despite all the efforts, the air base was up to its space limit with more stored F-14s returning to service after overhaul. It is known that in some instances up to ten F-7s were parked in a single shelter.

There were rumors that some of the F-7s were transferred to Birjand airport in Eastern Iran (sometimes referred to as TFB-13), but the existence of this facilities as an air base and its designation has always been questionable.

According to current photographs, IRIAF F-7s operate from Isfahan TFB-8, Tabriz TFB-2, Shiraz (Dowran) TFB-7, and Bushehr (Yassini) TFB-6, with training detachments based at Isfahan TFB-8.

The Color Scheme

The F-7N/FT-7Ns were delivered to the IRIAF in Chinese-developed light blue (FS.35450) and pale sand yellow air superiority camouflage. A similar camouflage was also applied to the last batch of MiG-29As and all MiG-29UBs supplied to Iran by Russia.

The F-7s remained in their original colors for some time. However, the original camouflage proved to be unsuitable for the Iranian terrain and therefore after trials with other colors, it was decided to adopt a new three-tone camouflage consisting of FS.30140 German Red Brown, FS.30400, FS.34079 Dark Green, similar to that on the F-4s and F-5s. Some experts suggested the adoption of the new camouflage could also be an indication of a shift to air-to-ground role for the type.

All aircraft of the 51st, 52nd and 53rd TFS based at Omidieh TFB-5 received and retained the new camouflage until the former commander of the Iranian air force, Brig. General Mansour Sattari authorized a new two tone light blue gray air superiority/ interceptor camouflage to be adopted by the F-7N units.

There is no standard for the application of serial numbers on the vertical stabilizer and the fuselage. Some aircraft use all Farsi numerals, some all Latin, and some combination of both on either port or starboard sides. The F-7Ns were void of standard roundel until recently when a small roundel is applied in front of the wing.

Leon Manoucherians (SAFCH #1741), USA.

See photos on pages 110, 122, 143, & 144

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(Continued from page 111.)

color profiles (one Czech), and table of individual Fa 223. "Deutsche Hubschrauber für die Schweiz" 8 pages on German helicopters (Fl 265, Fl 282, Fw 61, & Fa 223) inc. 19 photos. "Ungarische Flieger an der Ostfront" 32 pages inc. 71 photos and 11 color profiles [CR.42, Re.2000 (2), BF 109F (3), Fl 156, Bf 109G (3), & Ar 96, and lots of photos of these as well as Hungarian bomber, transport, observation, & utility a/c]. "Transall – Engel der Lüfte" 24 pages inc. 44 photos.

44 (1114 pages) "100 Jahre Marineflieger" 44 pages on pre-WW1

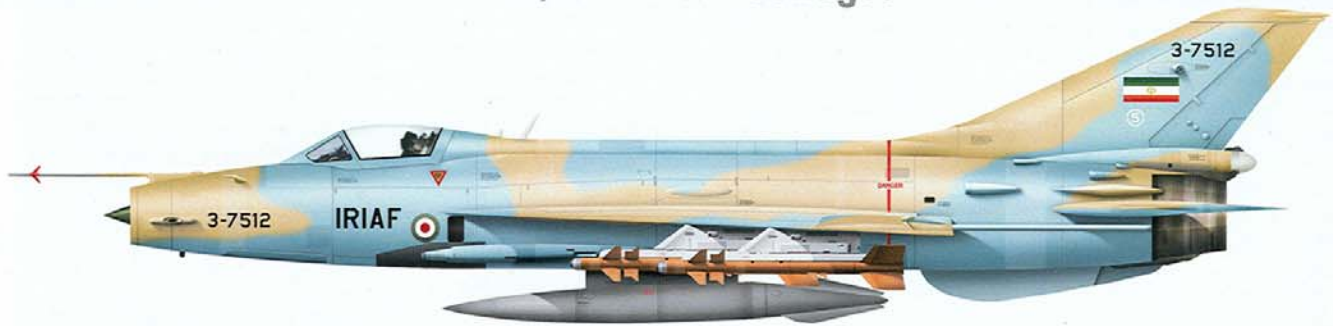
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ITALY

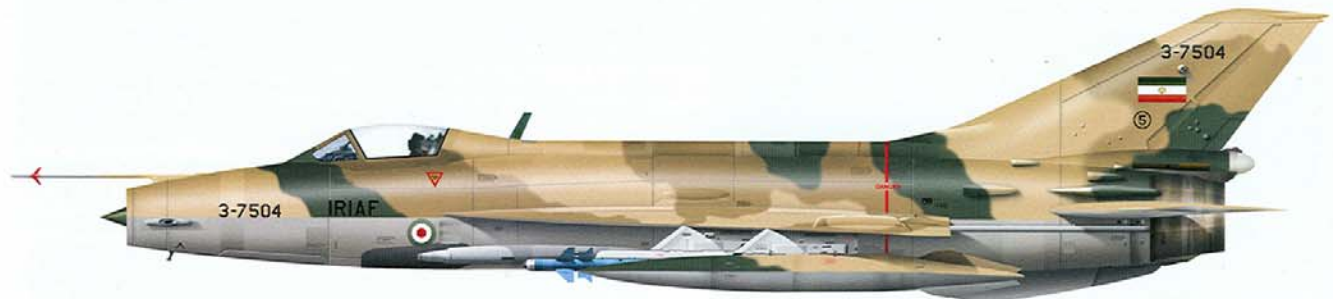
JP4 Menslie di Aeronautica e Spazio. Via XX Settembre, 60-50129 Firenze, Italy. Email: jp4@dueservice.com. Website: www.ediservice.it.

Ottobre 2013 (100 pages) Color photos: South Korea C-103J and Iran Mirage F.1. "Incidenti Militari" 1 page inc. 2 photos. **Novembre 2013** (100 pages) Color photos: Egypt Beechcraft 1900C; Brazil AF-1 Skyhawk; Indonesia KAI T-50i Iran F-4; Qatar Mirage 2000; & Singapore Pilatus PC-21. "Rivelato il Cessna Scorpion" 2 pages inc. 2 photos. "MiG su portaerei indiana" one page inc. 3 photos. "Incidenti Militari" 1 page inc. 5 photos (Colombia C-130H, Mexico UH-60, Iran F-4 '3-6549', Venezuela Shaanxi Y-8F '2803', & Chile LF-16).

F-7N/FT-7N Camouflages



Armed with four PL-7 air-to-air missiles, F-7N 3-7512, assigned to 51st TFS at Omidiyeh TFB-5, in its original air superiority light blue/light sand yellow camouflage.



Armed with two PL-7 air-to-air missiles and two long range auxiliary tanks, F-7N 3-7504, assigned to 52nd TFS at Omidiyeh TFB-5, wears the IRIAF-standard tree-tone camouflage.



FT-7N 3-7718, assigned to Isfahan flight academy TFB-8, is one of two aircraft painted in this impressive demonstration colors. The other one is 3-7703



FT-7N 3-7723 wearing an experimental three-tone broken camouflage with two different dragons on the fuselage and tail, as it was shown in a static display during the March 2013 open house at Vahdati TFB-4, Dezful. This aircraft is known to be the first FT-7N overhauled in Iran. The small roundel over the wing has been recently added.

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FT-7N 3-7726 take off from Mehrabad TFB-1.



FT-7N 3-7708 on static display at Dezful TFB-4 open house 2013.



FT-7N 3-7708 in the standard IRIAF three-tone camouflage.
[Shahram (Shary)]



FT-7N 3-7716 with second generation light blue/sand camouflage.

The First Junkers in Chile

Santiago Rivas

The story of the Chilean Junkers began as a direct consequence of the Exposition Süd-América organized by the German Junkers Company. The Exposition, that started on 1 December 1922 in Havana, Cuba, was followed by two Junkers F13 flying to Brazil, and, after the replacement of one that crashed, ended in Buenos Aires, Argentina. There, another four F13 were added, D-319 (Turteltaube), D-320 (Kormoran), D-321 (Edelfalke), and D-322 (Alk), one A20, one T23 D-485, and one K16 D-323.

The mission was stationed in Buenos Aires under the direction of Eberhard von Jagwitz. From there they made many demonstration flights. The first crossing of the Andes cordillera by German aircraft took place on 4 December 1925. This was accomplished by two Junkers aircraft: (1) F13 D-320, piloted by Franz Kneer, with a mechanic, the company representative Christian Doxrud, and an Argentine journalist in the passenger cabin. (2) An A20 piloted by Willy Neuenhofen with mechanic Fritz Reiche. They took off from Mendoza and landed at the Escuela de Aeronáutica Militar (Military Aeronautical School) of the Chilean Army at Lo Espejo, Santiago.

The German company arranged with the company Fölsch y Cía., Santiago, to organize demonstrations from the runway of the Riding Club of Santiago and from the Sporting Club at Viña del Mar. These demonstrations highlighted the need to create an airline to Punta Arenas in the extreme south of the country, which was only linked with the rest of the country by sea or across Argentine territory. Junkers offered to create such an airline if the Chilean government invested 2 million Chilean Pesos.

The offer gained the interest of the government and, in January 1925, the two planes were purchased for 270,000 Chilean Pesos. They became part of the Chilean Army Air Service on 1 March. Thus, the F13 became the first transport aircraft of the Chilean military. The intention was to create a passenger and airmail service operating out of Cantón aerodrome, at Providencia east of Santiago. To demonstrate the possibilities of such an airline, the two planes were prepared to fly to Mendoza, Argentina, and from there to escort the train carrying President Arturo Alessandri Palma, returning from the exile to finish his government that had been interrupted some time before. On 19 March 1925, the A20 departed with Captain Rafael Sáenz and Lt. Colonel Marmaduque Grove Vallejo the new interim Director General de Aeronáutica, while the F13 left with Captain Federico Brahona and Lt. Oscar Herreros together with two Army officers. Soon after taking off, the A20 had an engine failure and had to land. The F13 reached Mendoza without any problems,

becoming the first Chilean military plane to cross the cordillera with passengers.

Junkers was also interested in supplying aircraft to the Chilean Navy. F13 D-322, piloted by Wilhem Neuenhofen, was equipped with floats and demonstrated at the Quintero Air Base of the Naval Aviation. But, the Navy was interested in the Dornier Wal, so the plane was returned to Argentina soon after that.

Meanwhile, on 18 June, by Decree #1849, the Military Aeronautical Direction was authorized to organize a passenger and airmail service with the two planes operating from Cantón on a non-regular basis. Also, routes to the cities of Concepción to the south, and Arica in the extreme north were explored. The first flight of the service carried four passengers to Valparaíso, 100 km from Santiago. This was followed on 30 June by a flight by the A20 to Tacna in the north with stops at Ovalle and Iquique. Later, on 6 November, both planes flew to Temuco in the south, taking off from the military aerodrome of El Bosque with a stop at Concepción and returning by a direct flight.

After that, on 12 December, both planes, together with a Vickers Valparaíso, made a flight without stops to the city of Antofagasta, departing at 0445 from El Bosque Air Base. The Vickers landed at Playa Blanca, Antofagasta at 12:25 and the F13 at 1435. However, the A20 had to land at Copiapó because it didn't have enough fuel to reach its destination. It suffered some damage on the landing, and only arrived at Antofagasta on the 18th.

Passenger service was initiated to Antofagasta at 1115 of 15 December when an F13 received passengers Graciela Aguirre de Castro, Elena Guerrero, Hugo Castro Toro, and Doctor Engelberto Morán, while Major Gabriel Valenzuela and Lt. Enrique Mujica were in the cockpit. A break in the propeller caused the plane to vibrate and the radiator and engine cowling fell off. The pilot reduced power and started a descent, but Doctor Morán panicked. He opened the door of the aircraft and jumped, dying on impact on the sea. The plane, with the door open, lost stability and fell into the sea near the coast, sinking immediately. Lt. Mujica drowned, but the other occupants made it to shore. This was the end of the first attempt to organize an air service, but the idea remained.

Three engined planes

While these flights of the F13 and A20 were taking place in Chile, in 1925 a commission lead by Lt. Colonel Marmaduque Grove Vallejo and Captain Diego Aracena travelled to the Junkers subsidiary Aktiebolaget Flygindustri at Limham, Sweden. It was there that military

versions of Junkers aircraft were being assembled as that work was banned in Germany because of the Versailles Treaty. There, the commission tested the K30 three engine aircraft, a variant of the R42, which was a military version of the civil G24. The plane was considered robust and powerful and six were purchased, receiving in Chile the serials J1 to J6 while keeping the name R42, despite being a K30. The Chilean R42 were powered by three BMW engines of 310hp and were armed with three Madsen machine guns, two on the top of the fuselage and one below. The crew consisted of three men.

(Because it was of the same origin, the A20 received the serial J7. While in Chilean serie, this plane had suffered at least two accidents and had been repaired with parts that gave it quite a different appearance, more like the A35 (an improved A20) - a different tail, balanced stabilizers, new undercarriage, and probably the BMW III engine was exchanged for a BMW IV or a Junkers L5.)

Once assembled, the six R42 were sent by sea to Chile, arriving at San Antonio harbour in February 1926, from where they were taken to El Bosque Air Base by train. There they were reassembled under the supervision of German technicians Walter Friedensburg, Fritz Reiche, and Karl Warch, all from Junkers. On 11 September 1926, the anniversary of Chilean independence, Captain Alberto Amiot made the first flight of an R42 in Chile from the Military Aviation School at El Bosque. Initially, the planes were destined for that school to train the new crews, but on September 1927 J2 was assigned, together with the A20, to the *Escuadrilla de Bombardeo* of the *Grupo Mixto de Aviación N°1*, created in March 1926 at Iquique, where a base was being built near Alto Hospicio. Because the base wasn't ready, on 3 September 1927 both planes were flown to Arica from where they would operate until the new facilities were ready. For this flight, Captains Amiot and Francisco Lagreze were assigned as pilots for J2, and along with engineer Karl Warch and sergeants Sáenz, Verdugo and Coloma. With two stops, they arrived at Arica on Monday 5 September.

The other five R42 were assigned to the *Escuadrilla de Bombardeo* of the *Grupo Mixto de Aviación N°3* at El Bosque, with plans to move to Maquehue Air Base that was being built at Temuco.

Captain Lagreze returned to Santiago in October to become War Minister. General Bartolomé Blanche used J1 on what was the first inspection tour using a plane. On 10 October, he went to Antofagasta without stops, two days later he reached Iquique, and on the 16 he went to Arica. Later, on 21 October he returned to Antofagasta, continuing on the next day to Copiapó, and on the 24 he returned to El Bosque.

Shortly after that, on 13 December 1927, to inspect the works at the Temuco Air Base and review the troops deployed in the town of Angol, General Blanche flew to

Angol in J1 piloted Captain Lagreze. He continued on to Temuco the next day and returning directly to Santiago on the 15th.

Escuadrilla de Bombardeo Independiente

The first problem that R42 operations encountered was the lack of crews. There were only two crews available, so each *escadrille* had one crew. Because of that, when the *Grupo 3* was transferred to Temuco, on 28 June 1928, the *Escuadrilla de Bombardeo Independiente* was created, dependant from the *Dirección de Aviación*. All of the R42 were assigned, together with the A20 and a single Dornier Do-C Merkur, under the command of Captain Alfredo Fuentes Martínez. Because of the lack of technicians, engineer Karl Warch and technician Fritz Reiche, both from Junkers, were contracted to lead the maintenance. Along with the commander of the units, the pilots were 1st Lt. Manuel Hurtado and Luis Lepe, supported by a group of mechanics, a medic lieutenant and 38 conscripts.

Together with the lack of personnel, the unit also had problems receiving fuel. The fuel was a mix of gasoline with 50 % of benzyl. The latter had to be imported from Europe and delays in delivery caused a standstill of operations. Also, the Brest-type hangar, purchased in Germany together with the planes in 1925, was assembled only in 1928, improving the facilities for maintenance work.

During the first half of 1928, the R42 flew only 124:45 hours, mostly on transport missions, but with some armament, bombing, and reconnaissance practices. The A20 and the Merkur were modified for aerial photography missions.

However, the hard work of the personnel made it possible for three R42 and the Merkur to take part in the air parade on 20 September for the inauguration of the General Bulnes monument, in which they flew together with the planes of the Military Aviation School. Later, another plane supported the deployment of the Curtiss Falcons that were assigned to Los Cóndores Air Base at Iquique. After, that, on 10 December, three planes went to Valparaíso and from there they escorted the train that took the US president Herbert Hoover to Santiago. He had arrived in the country on board the USS Maryland warship.

Flight to Punta Arenas

Despite of the loss of the F13, the idea to organize a passenger and cargo service was kept alive and during 1928 and 1929 works were began to establish an air mail service between Santiago and Arica using a de Havilland Gipsy Moth. The A20 and the Merkur were extensively used to take pictures of the possible landing sites, using Eagle cameras purchased in 1926, while the R42 carried

the materials to build the aerodromes and gave logistic support to the Gipsy Moth.

Meanwhile, on 11 September 1929 three R42 took part in the Independence Day military parade. Also in the parade were 15 Curtiss Falcons, 12 Wibaults, 12 Vickers Vixens, 9 Gipsy Moths, 3 Fairchild's, 3 Avro Gosports, and 3 Bristol's.

Because of the harsh weather on the south of the country, Lt. Colonel Arturo Merino Benítez, director of the Servicio Aéreo Militar, ordered the the R42 to survey the route to the town of Puerto Montt with the ultimate intention of opening a route to Punta Arenas at the southern extreme of the country. A long distance from the main populated centres of the country, this region is separated by the Andes Cordillera and the fjords that form the southern part of Chile, so the only way to reach the city without crossing into Argentine territory was by the sea or by air.

The initial plan was to inaugurate a service to Puerto Montt with the R42 and from there continue onto the town of Puerto Aysén, 450 km to the south, using Vickers Vedettes, equipped with floats flying in pairs to help each other in case of an emergency. On 5 January 1930, R42 J3 and J6 commanded by Captains Alfredo Fuentes and Manuel Hurtado flew to Puerto Montt to start the route from El Bosque, with a stop at Temuco carrying some passengers. On the 8th, J3 returned to Santiago, again with a stop at Santiago. Since the Vedette were considered too fragile for the region and had a small cargo capacity, J6 remained at Puerto Montt with Captain Fuentes to be modified into a floatplane to test the flight to Puerto Aysén.

On the 13th, Lt. Colonel Merino flew an R42 non-stop from Santiago to Puerto Montt to check on the modifications to J6. These modifications were completed on the 17th with a test flight from the mouth of the Chamiza River some kilometres from the city. On the 20th, Captain Fuentes and Lt. Bate made a survey flight to the city of Valdivia 180 km to the north. On the following day, together with Merino, they tried to reach the Yelcho River, 200 km to the south, but the bad weather made it impossible for them to explore the valley of the river and they had to return. Finally, on 25 January, they reached Puerto Aysén after a flight of three hours, returning on the same day. During the return flight, they were noticed that one of the two Vedettes that was covering the route, serialised 6 and crewed by Lt. Aníbal Vidal and 2nd Sergeant Ernesto Román, had crashed into the water because of the strong winds. The second Vedette that was flying with them, commanded by Lt. Schaerer, landed and searched for the crew, but they were not successful.

As soon as he learned of the tragedy, Merino ordered one of the Junkers to join the search. It took off at 13:40

with Captain Fuentes as pilot, Fritz Reiche and cabo 1° Uldericio Espinoza as mechanics, Sargento 1° Luis Soto as radio operator, and Sargento 2° Alfredo Moreno as photographer. After searching the area of the accident without success, they continued to Puerto Aysén, arriving at 17:30.

To encourage the personnel and demonstrate that despite of the bad weather the route to the Magellan could be opened, Merino ordered the plane filled with extra fuel and to depart on the following day for Punta Arenas. At 8:15 on the morning of the 26th, the plane took off and headed south flying between the mountains that surround the fjords of southern Chile, to cover the almost 1,000 km to Punta Arenas. They had to fly at a low altitude because of the weight of the extra fuel. During most of the flight, the weather was very bad with storms, high winds, and rain. At 14:00, when it was clear that they were not making much progress, they landed on Ancón Sin Salida Creek, where, after two hours searching, they found a beach where they grounded the plane and waited for the weather to improve, while they refuelled the plane. At 20:00 they tried to take off for Puerto Natales, a 1:15 hour flight, but the big waves broke the tip of the propeller on the starboard engine and the mount of one of the floats, which started to take on water. After landing at Puerto Natales, 200 km from Punta Arenas, Reiche cut the other tip of the damaged propeller to have it balanced, as they didn't have a spare. Finally, on the following day they made the last leg of the flight and at 11:35 they reached Punta Arenas - the first flight that linked that city with the central part of the country.

After some repairs, on 4 February the plane was ready to fly again. On the 7th, Lt. Colonel Merino wanted to make a reconnaissance flight over the area, but this had to be cancelled. At 16:00 they took off carrying the Major of Magallanes and Manuel Chaparro as passengers. After crossing the Magellan Strait and close to Dawson Island, the central engine started to vibrate and, after a loud explosion, stopped. The crew attempted to re-cross the strait to return to Punta Arenas, but a strong wind from the southwest made it impossible to reach the coast - the plane kept losing height until, at 17:35 it landed on the sea, which was very heavy, about 35 km to the south of Punta Arenas and only one km from the coast. A big wave shook the plane and broke the right float amounts, so Merino decided to abandon the cabin and ordered Cabo Espinoza to inflate the life raft. However, the plane continued to float, so the crew used the radio to send an SOS while they remained on the plane - waiting. A strong current pushed the plane towards the middle of the strait until they lost sight the coast. Little by little, the plane started to sink, and when the night came, the starboard wing and part of the cabin were under the water. At 21:30 they saw a ship

searching for them, but the ship did not see them and it disappeared on the darkness. By that time, the radio was under water, so they couldn't send any more SOSs. At 23:00 they saw another ship and at 23:50 they saw another ship that saw them and headed their way. But then a huge wave inundated the fuselage and Merino ordered the crew to abandon the plane. Another wave passed over the port wing and drove them all into the sea, sinking the plane. Merino, Espinoza, and Major Chaparro clung to one of the floats from the plane, while Reiche managed to climb to the other float, until they were rescued by the tug *Antonio Díaz*. The other crew members, Captain Fuentes (commander of the *Escuadrilla de Bombardeo Independiente*) and sergeants Soto and Moreno, downed.

With the Fuerza Aérea Nacional

As a consequence of an initiative by Arturo Merino, on 21 March 1930 by Supreme Decree No 1167, the Naval Aviation and the Army Aeronautical Service were united and became the *Fuerza Aérea Nacional* (FAN). Thus, Chile became the first Latin American country to have an independent air force. The Army Junkers were joined by a single W34B (serial 27). The W34B had been purchased by the Navy in 1928 for aerial photography, and was equipped with Zeiss Aerotopograph cameras installed by the German technician Hugerhoff at the beginning of 1929. The plane was used to make a photographic survey of the area of Aysén in preparation for flights to that area. It could be fitted with either wheels or floats.

The Gabinete de Fotografía (Photography Cabinet) was created in 1930 with a complement of the W34B, the A20, and the Merkur. These three planes would serve until the end of their careers: The W34B was lost in an accident while surveying the Maipo River valley on 26 May 1932, the A20 was withdrawn from service on November 1935, and the Merkur was withdrawn on October 1938.

Meanwhile, on 16 December 1930, the *Escuadrilla de Anfíbios N°2* was created at Cabo Negro, Punta Arenas. It started operations on 27 January 1931 with one R42 and some Curtiss Falcons, all equipped with floats. These were soon replaced by the Dornier Wal and some de Havilland Gipsy Moths.

Also, by that time, the serials of the R42 had lost the "J" in their serials and became simply 1 to 5. Plans were made to move the *Escuadrilla de Bombardeo* to the city of Chillán, 375 km south of Santiago, but this idea was dropped and the unit remained at El Bosque.

In combat

On 31 August 1931, the sailors of the Chilean Navy began an uprising because a reduction in their salaries, and on 6 September the government ordered an air attack to the ships of the fleet which were anchored at Coquimbo, especially the battleship *Almirante Latorre*. Also at Coquimbo were the cruiser *O'Higgins*, destroyers *Lynch*,

Serrano, *Orella*, *Riquelme*, *Hyatt*, *Videla*, and *Aldea*, two submarines and some support ships. R42 serial 1 and 5, commanded by Lt. Alberto Latorre and Captain Oscar Herreros respectively, were deployed to Ovalle, a town 70 km from Coquimbo, along with seven Curtiss Falcons, two Vickers Vixen, two Vickers Wibault, and two Ford 5AT, the later from the *Línea Aérea Nacional* (LAN) which had been reconfigured as bombers. Meanwhile, to the north, the Curtiss Hawks and Falcons at Iquique and Antofagasta stayed on alert to counter any uprising in the north of the country. Deployed at Concepción were two Wibault, three Gipsy Moths, one Cirrus Moth from Grupo 3 and some Sikorsky and Loening amphibians from Grupo 5. Finally, the Dornier Wal and Fairey IIF from the base at Quintero were used for maritime surveillance. The other three R42 were used together with the remaining Ford 5AT on transport missions, together with other planes.

On the 7th, at 17:00, the two Junkers R42 took off with the Curtiss Falcons, two Vixens, and one Wibault and headed out to the sea heading north at an altitude of 1600 m. Once they were west of the fleet, they headed to the ship with the sun at their backs. Junkers R42, serial 1, launched a 300 kilo bomb that fell ten meters from the stern of the *Almirante Latorre*, while the three Bofors bombs it was carrying failed to leave their pylons. R42, serial 5, was able to release all its bombs, but they fell 30 m from the bow of the warship. Meanwhile, antiaircraft artillery had hit R42. serial 1, four times without causing major damage. The other planes dropped 77 9-kilo bombs hitting the submarine *Quidora* and killing one sailor. As soon as they landed, Junkers, serial 1, was declared unserviceable. It was replaced by a Ford to which a Goertz sight was adapted in the toilet compartment and a hole in the floor was made to drop the bombs. At the same time, a second attack was being prepared for the next morning.

The impact of the attack, despite not having caused much damage, demoralized the rebel sailors and they surrendered, so no more attacks were made. This was the baptism of fire of the FAN and it showed the lack of expertise of the crews because of the poor results of the bombing. It also showed the lack of preparation of the material as many technical failures had occurred.

Last operations

Later that year, operations returned to normal. However, the engines were suffering numerous problems and new ones were purchased. In 1932, R42, serial, 4 had an accident that left it grounded for some time. In that same year, the *Escuadrilla de Bombardeo Independiente* became the *Grupo de Bombardeo*, keeping its base at El Bosque.

During the decade of the thirties, the R42 began to show their age and they started to have more technical

problems and it became evident that they had been surpassed technologically. Therefore, in 1937 a batch of twelve Junkers Ju86K was purchased to replace them, arriving in 1938.

After the arrival of the new planes, the R42 remained serving only on secondary tasks and planes 1 and 3 were used as spares. Finally, in 1941 the planes 2, 4, and 5 were

withdrawn from service, finishing the career of the R42 in Chile. All of them were scrapped.

Santiago Rivas (SAFCH #1739), Argentina.

The author wish to thank Lennart Andersson, Patrick Laureau, and Alberto Fernández Donoso for their help.

Junkers F13, A20, R42 and W34 in Chile

Model	Serial	Enlisted	Retired	Notes
F13	Hasn't	1-3-25	15-12-25	C/n 709, ex D-320 in Germany. Took part on the Junkers Mission. Bought by the Army. Crashed near Antofagasta.
A20	J7	1-3-25	11-35	Bought by the Army, passed to the Air Force in March 1930. Scrapped.
R42	J1	9-27	1939	Called Junkers K30 by the factory and R42 in Chile. C/n 910. Bought by the Army, passed to the Air Force in March 1930. Scrapped.
R42	J2	9-27	1941	Called Junkers K30 by the factory and R42 in Chile. C/n 913. Bought by the Army, passed to the Air Force in March 1930. Scrapped.
R42	J3	9-27	1939	Called Junkers K30 by the factory and R42 in Chile. C/n 920. Bought by the Army, passed to the Air Force in March 1930. Scrapped.
R42	J4	9-27	1941	Called Junkers K30 by the factory and R42 in Chile. C/n 925 Bought by the Army, passed to the Air Force in March 1930. Scrapped.
R42	J5	9-27	1941	Called Junkers K30 by the factory and R42 in Chile. C/n 926. Bought by the Army, passed to the Air Force in March 1930. Scrapped.
R42	J6	9-27	7-2-30	Called Junkers K30 by the factory and R42 in Chile. C/n 928. Lost at Magellan Strait after the first flight to Punta Arenas.
W34B	27	1928	26-5-32	Bought by the Navy, passed to the Air Force in March 1930. Accidented on Maipo Valley.

[Editor's note: I asked Dan Hagedorn to add any information on the Chilean Junkers he may have found in US archives. His reply follows.]

Although Santiago lists the "enlisted" dates for the R 42s as September 1927 in every case (and this may indeed have been their actual date of acceptance to active duty) the aircraft were in fact in Chile as early as 30 July 1926 as evidenced by the following except from an Air Order of Battle dated that day: "Also, six Junkers (Sweden) transport-bombers are on order with three each BMW engines. It is understood that these aircraft are at San Antonio, Chile, awaiting transport to Santiago."

There was also a most interesting intelligence report dated 15 December 1925 regarding these

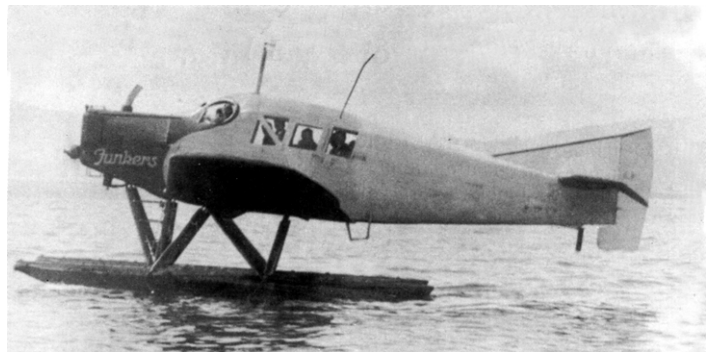
aircraft, which was exceptionally detailed, and which, when compared to what Santiago reported, rather begs the question as to their actual equipment at delivery. It read as follows: "The Aktiebolaget Flygindustri at Malmo, Sweden, is working on an order for nine [emphasis mine] airplanes for the Government of Chile. This is the largest order received by the firm to date. Six will be completed by the end of March and three at a later date. They are being manufactured according to the model G23L. In the upper part of the main cabin, which is separated from the pilots compartments by a partition, two fixed [emphasis mine] armored machine gun turrets, with two guns each, with Vickers guns. There is also a moveable machine gun turret

suspended under the main body. It has one gun. Six were delivered aboard the S.S. *Llmar* and left Sweden on April 20th."

Santiago gives the latest dates of service for the R 42s as 1941 and, while strictly speaking, this may be correct, at least one was still nominally on the Air Order of Battle as late as 24 May 1944! The AOB of 17 April 1943, probably referring to this aircraft, listed one "Ju 52" (assumed to be an error for the R 42) noted as "junk - needs engines" but still considered potentially airworthy. However, an early report, dated 14 July 1942 still showed one "J-42" - probably the same one - with the notation "this plane is 22 years old but is still in commission," so I would give this as approximately the "final" dates of service.



The F13 and A20 after their arrival to Chile.



The F13 'D-322' during its exhibition to the Chilean Navy.



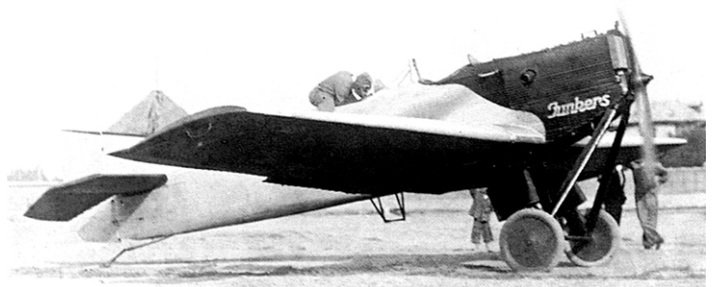
The F13 and the A20 after their arrival to Chile.



The F-13 taking off from the beach at Antofagasta shortly before its accident.



The crew of the F13.



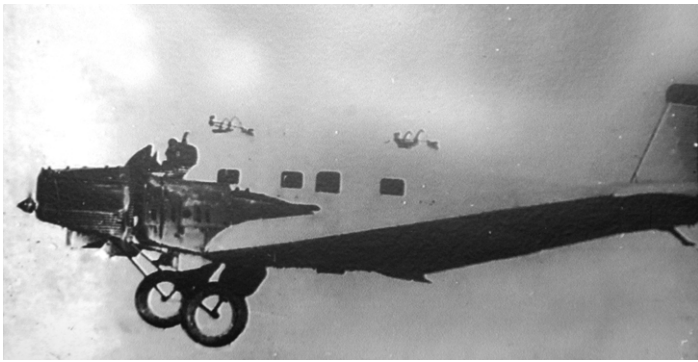
The A20 during its early days of operations.



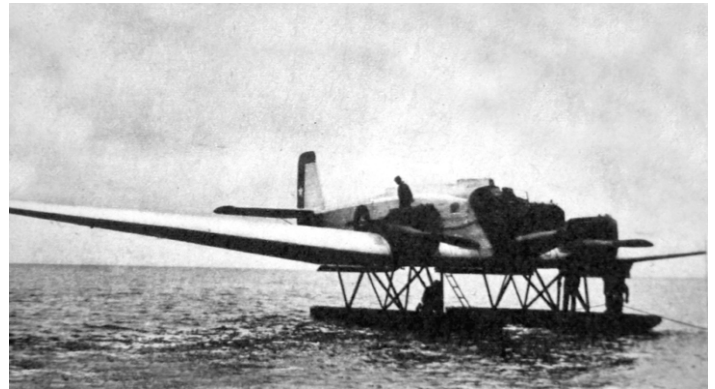
The F13 in flight.



The Junkers A20 in Chile.



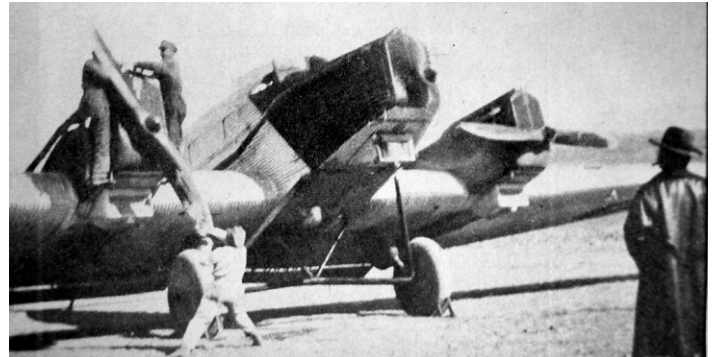
An R42 in flight. The two dorsal machinegun positions can clearly be seen.



'J6' at Punta Arenas



J3 R42 supporting the airmail operations of the Gipsy Moth in the north of the country.



Starting the engines of an R42.



'J6' at Ancón Sin Salida during the flight to Punta Arenas.



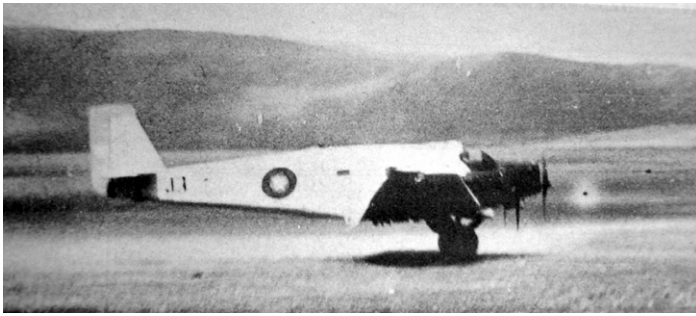
. 'J3' at El Bosque.



'J6' at Puerto Aysén.



Ground crew of an R42 with 150 and 300 kilos bombs.



'J3' taking off from the desert in northern Chile.



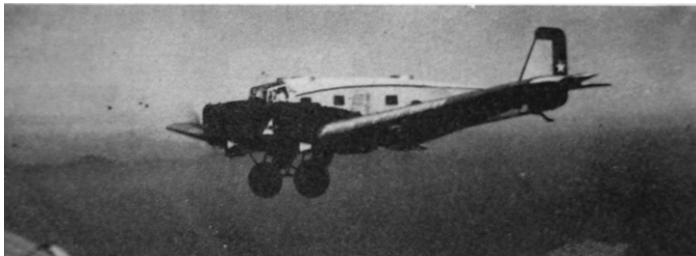
R42 '3' flying low.



R42 in front of the maintenance hangar at El Bosque.



23. Accident of R42 '4' in 1932.



An R42 with the paint scheme used during its last years of service.



An accident occurred to an R42 at El Bosque in 1927.



Chilean Air Force crew with an R42 after 1930



'J3' and the Merkur at El Bosque..



'J5' preparing for take off.



An R42 flying over the Andes cordillera.



Four R42 at El Bosque.



The W34B after becoming part of the Fuerza Aérea Nacional..



The W34B used for aerial photography.



The W34B with floats in the south of the country.



The W34B at Palena, near Puerto Aysén during the photo survey of southern Chile.

The Peru-Ecuador Border War (Guerra De Zarumilla-Maranon) 1941

Daniel P. Hagedorn

[Editor's note: This article is a reprint from *Latin American Air Wars and Aircraft 1912-1969*, by Dan Hagedorn. This book was published in two parts by Crécy Publishing.. The photos and color profile drawings were published as a hard-back book (ISBN 1 902109 44 9), and the full text is available online from www.crecy.co.uk. This chapter is reprinted here by permission of the publisher and the author.]

In December 1939, Presidente Manuel Prado of Peru was handed the scepter of state by his predecessor, Benavides, in a freely elected change of power. Peru was relatively peaceful and enjoying a period of good finances.

Prado's leadership of this growing South American power was strengthened by the dawn of 1941 by fervent nationalistic support of Peru's position relative to neighboring Ecuador, where a very long-standing border dispute remained a source of great public debate.

As early as January 8, 1941, Peru's Minister of Foreign Relations was compelled to respond to a host of Ecuadorian charges. Chief amongst these was the allegation that two Peruvian aircraft had over flown Ecuadorian territory near Arenillas on the afternoon of Friday, January 3rd. There had been a light skirmish between the Peruvian and Ecuadorian posts at Angulo and Corral Viejo, but Peru claimed that this had been initiated by the Ecuadorian garrison, which they said had fired their rifles at a truck loading wood at Corral, and which had been answered by the Peruvian crew without casualty to either side. The Ecuadorians claimed that the Peruvian troops on the truck had fired first, and that the skirmish had lasted some 30 minutes.

Ecuador, which had long been leery of Peruvian territorial ambitions, probably fueled the flames on January 10th when the city of Quito announced a campaign to organize a public collection for the national defense

In fact, there was some truth to the Ecuadorian claims, but of a rather surprising nature. The German-controlled airline in Peru, Deutsche Lufthansa Sucursal Perú, which had rendered excellent service to the Peruvian flying public since May 1938, had transferred one of its work-horse Junkers Ju 52/3m's, msn 5283 OA-HHD Aconcagua to its affiliate SEDTA, in Ecuador, on November 29, 1940. The management had apparently not given a thought to the political implications of not removing the Peruvian registrations and markings from the aircraft prior to the transfer, and it was this aircraft that had inadvertently inflamed Ecuadorian passions.

The German manager of the airline, Herr Krefft,

insisted that an attempt had been made to remove the markings, but that the paint had left marks on the corrugated surfaces of the aircraft that were plainly distinguishable, even after determined efforts to eradicate them. The aircraft had been immediately painted with an Ecuadorian flag after arrival in Guayaquil, but, incredibly, had been reported in the disputed area as it flew over as Ecuadorian by the Peruvians, and Peruvian by the Ecuadorians! Krefft was summoned to the Peruvian Ministry of Marine and Aviation to explain this explosive issue, and reported that the mix-up was probably due to the "...two sets of markings carried by the airplane," but that there had been "...no desire or attempt to cause trouble between the two governments." A further irony is that this very same aircraft was the one that ended up not long afterwards joining the U.S. Army Air Corps as its solitary Junkers C-79 (see the chapter on World War Two).

Peru escalated the issue by sending a contingent of some 500 troops to their airfield at Talara, near the Ecuadorian frontier on the Pacific. Peru was also in the embarrassing position of having to acquire a relatively large number of ground forces arms and ammunition from Japan, since Japan was, at that time, her number one trading partner, and there were large sums of Japanese foreign exchange that could not be used anywhere else. Peru was probably the only Latin American nation facing such a problem at the time.

The U.S. embassy in Lima had learned, from an informant, that the Germans were making extensive offers to the Ecuadorian senior leadership to instigate a war between Peru and Ecuador, and that the Germans had allegedly promised to give "...all aid necessary to Ecuador" not later than August 20, 1941. The informant could not explain the significance of this particular date, other than to suggest that the Germans possibly expected to win the war in Europe on or before that date. He further stated that the Germans had hinted that Ecuador would be able to "...get as much of Peru as they wanted, if they would start border trouble in the near future." In fairness, other informants to the embassy stated that U.S. interests were responsible for the tension, as they were anxious to intervene and take over control of the vital Galapagos Islands as their Pacific key to the defense of the Panama Canal.

Occasional skirmishes occurred into early July 1941, with only modest public outcry in Ecuador, where most of the rhetoric came from six German-controlled newspapers, which attempted to fan the flames of nationalism. Public

response was greatest in Guayaquil which, situated within striking range of the Peruvian border, arguably had the most to fear - while in the nominal seat of government in distant, lofty Quito, only two public demonstrations had been noted. The Peruvian garrisons in the border area had, however, increased from 500 in January to nearly 5,000 by July 4th, with General Eloy Ureta in overall command of what was termed the Agrupamiento del Norte. The Peruvian deployments are believed to have looked like this:

- at Piura, the 19th Infantry Battalion with 420 men
- at Sullana, a Cavalry Group with 180 men
- at La Solana, a border troop with 26 men
- at Talara, another Infantry Battalion of 420 men plus 17 aircraft of the CAP.
- at Tumbes, the 9th Infantry Battalion with 420 men at Pizarro, a major concentration, sometimes cited as the 1st Division, consisting of one Cavalry Group (180 men), an armored unit with 20 tanks (220 men), an artillery regiment (520 men), seven fighter aircraft (including four of the North American NA-50s and three Caproni Ca 114s, assigned to Escuadrillas 41 and 42 of the XXI Ecuadron de Caza) and eight bombers including Caproni Ca 111s, Northrop 8A-3Ps and Caproni Ca 310s. (1)
- at Zarumilla, another infantry regiment with 420 men

The tanks and artillery were apparently of Japanese origin, and the U.S. Office of Naval Intelligence believed that it was likely that Japanese advisors may have accompanied the arms.

At 1100h hours on July 5th, several members of the Peruvian Guardia Civil, a sort of local militia organization, accompanied by a number of civilians, crossed into Ecuadorian territory and, according to Ecuadorian reports, commenced abusing some Ecuadorian women who were bathing in a river and washing clothes. The women raised an alarm and three Ecuadorian civilian men went to their aid, whereupon they were greeted by a volley of rifle fire from the Peruvians.

The firing had been heard in Huaquillas, the closest Ecuadorian village, and the Ecuadorian Army battalion commander there, Mayor Rosero, immediately sounded "To Arms" and sent a patrol to see what had happened. When they arrived upon the scene, they were greeted by both rifle and machine gun fire from the Peruvians who, by this time, had received reinforcements (apparently Regular Army troops), and the patrol estimated that some 50 Peruvians were on Ecuadorian soil, firing at the patrol.

During this encounter, an Ecuadorian soldier named Narvaez and a companion were both hit by machine gun fire and died of their wounds around 1400 that afternoon. The next morning, the 6th, the Ecuadorian battalion

commander in Huaquillas called upon the local citizenry to aid in the defense of the town. A few minutes later, Peruvian artillery started lobbing shells into the town, sending both the garrison and the citizens into the surrounding area. These events -the sudden appearance of the Regular Army reinforcements, machine guns and artillery - all seem to lend considerable weight to the Ecuadorian contention that the entire episode was but a contrived incident, designed to commence hostilities. The firing finally ceased at 1200, but started again about 20 minutes later and continued until well past 1500. At 1400, the Peruvians were apparently once again reinforced, and the Ecuadorian defenders realized that similar attacks had occurred at Una de Gato, Balsalito, Chacras, Aguas Verdes, Papayal, La Palma and Pocitos. These other sites sustained attacks by not only ground forces and artillery, but by four Peruvian aircraft as well, which started each attack - believed to have been NA-50s. These lasted for about 20 minutes, followed by machine gun, rifle and mortar fire. These attacks lasted until about 1520, except at Guabillo, where they continued much longer. The air attack at Chacras resulted in hits on the village church, the Ecuadorian barracks there and a private home. In Balsalito, firing continued all night, and Ecuadorian troops had received orders from the high command to return fire only if attacked.

On the morning of July 7th, between 0800 and 1000, Peruvian aircraft flew almost continuously over Huaquillas, occasionally dropping bombs. At about this same time, Peruvian ground units were reported to have concentrated in front of Zapotillo, and Alto Matapalo sustained fire from 1430 till 1600 intermittently, but with only one wounded on the Ecuadorian side. Corral Viejo was also attacked at around 1800, as was the Isla Payana, which was bombed by aircraft.

Another assault that day was mounted on Guabillo, Balsalito and Chacras, lasting 80 minutes, and again supported by aircraft, with one Ecuadorian officer and three soldiers wounded. The Peruvian forces attempted to cross the river at Chacras all night on the 6th and 7th, but failed for reasons unknown.

The CAP lost an NA-50 (XXI-41-2) on the 7th (2) flown by Capt. Renán Elias Oliveira when, after a fighter-bomber sortie, he discovered that one of his bombs had hung up on one of the underwing racks. Flying out over the sea and endeavoring to dislodge it, he crashed into the sea during violent maneuvers. It is not clear if the bomb detonated, or if he lost control while trying to dislodge it.

On the 8th, after another air attack on Isla Payana, a Peruvian aircraft flown by Tte. Omira had crashed into the sea, possibly as a result of ground defensive fire. Elsewhere, the Peruvians continued harassing fire between Huaquillas and Quebrada Seca.

On the 9th, the Peruvian forces commenced a most

interesting tactic. They would fire intensively for about 5 minutes with nearly all arms available, then cease fire as though awaiting a response from the Ecuadorian side, all along the line Huaquillas to Quebrada Seca. The Ecuadorians coolly instructed their troops not to return the fire unless the Peruvians crossed again into Ecuadorian territory. Up to this point, there was no report of any use of the Peruvian armored force.

The Ecuadorian Army in the area of the assault could count a total of about 1,000, all ranks, of whom nearly 300 were on the sick list for one reason or another. An understrength battalion of about 200 Regular Army troops finally reached the area on the 8th, and about 300 more were enroute. Additionally, an artillery battery of six guns and an infantry battalion of 300 men had also been sent to the Santa Elena area. The solitary Ecuadorian act of "aggression" appears to have consisted of a detachment of 10 soldiers sent to the Peruvian plantation on the Isla Puna, and another troop of 10 men sent to guard a small German oil concession on the north side of the Santa Elena peninsula.

Ecuador responded to all of this with surprising restraint. A national drive raised some \$1,045,000 to aid the defense of the country, and three airworthy Curtiss-Wright 19Rs were armed and fitted with bomb racks and sent to Santa Rosa. Two of the disappointing Meridionali Ro 37bis reconnaissance-bomber biplanes, received in 1937, and beset with never-ending problems with their Piaggio engines, were rolled out and attempts were made to place them into serviceable condition, but it was discovered that one of them had a broken crank shaft and the other required a valve job and could not be made airworthy for at least two to three days. By way of comparison, the entire Aviación Militar Ecuatoriana at this time consisted of a total of 506 personnel, all ranks, of which only 36 were officer pilots.

The trio of Curtiss-Wright 19Rs (Numbers 50, 51 and 53) were the only Ecuadorian aircraft to participate in the defense. They flew a number of reconnaissance and observation missions, as well as high-speed transport of ranking officers, between Guayaquil, Cuenca, Santa Rosa, and over the Golfo de Guayaquil and the Jambelí archipelago. Ecuadorian officers who flew these missions included Mayor Leonidas Hidalgo, Capitán Bayardo Tobar and Gonzalo García, Tenientes Bolívar Pico, Teodoro Carrión, Rafael Ramos and Alfredo Arteaga and Subtenientes Víctor Suárez Haz and Luis Arias Guerra. The aircraft almost invariably flew singly and with a single auxiliary fuel tank under the center line. No aerial encounters with opposition CAP aircraft are known to have taken place.

By July 11th, all was reported quiet between Huaquilla and Quebrada Seca, and it was assumed that the invasion had ceased. However, that very afternoon, Peruvian

aircraft once again were noted operating across the border between Macara and Cariamanga well inside Ecuadorian territory.

The CAP expanded its commitment to the combat zone when the Escuadrilla de Observación Terrestre No.70 with Curtiss-Wright 22B Falcons, was deployed by July 23rd. These aircraft were operational during the seizure of Ecuadorian positions at Angulo, Rancho Grande, La Bomba, Salinas and Bejucal. A similar unit, No.72, (3) was deployed with Fairey Fox II aircraft, and in effect served as Forward Observer aircraft for both advancing Peruvian artillery and aircraft. One of these, flown by Tte. García Romero, eye-witnessed the famous loss of Tte. Quiñones, flying one of the NA-50s, on July 23rd near the front.

By July 31st, the Peruvian advance had been renewed with what amounted to near Blitzkrieg energy. Ecuadorian Army ground resistance had been over run at every point, and surviving elements had fallen back in disorder to higher ground. CAP aircraft had honed their ground cooperation skills quickly, and were operating very effectively in overwhelming support of the Army. The major points of resistance, Machala, Pasajo and Puerto Bolívar had fallen, with Peruvian paratroops - the first ever employed in Latin America - dropped from Caproni Ca 111 bomber/transport - being credited with taking the latter, along with three railroad cars full of arms and ammunition there. The Peruvian Navy also took part in this action, a rare employment of combined arms in Latin America.

In fact, only 12 paratroops were landed in Puerto Bolívar - one of them alighting through the thatched roof of a home, having to be extricated by his companions, and they encountered no significant resistance.

After the shooting stopped on the evening of July 31st, the Peruvians had captured a large quantity of virtually brand new 7.9 mm Mauser rifles, automatic rifles and machine guns, and four Breda 20 mm anti-aircraft guns, as well as a huge quantity of ammunition and, ironically, steel helmets of Italian manufacture as well. Nearly every Peruvian infantryman seemed to have one to take home as a souvenir of the campaign, according to one observer. Casualties reported by Peruvian forces were 21 Ecuadorian officers and 900 men killed, as opposed to 2 and 43 respectively for Peruvian ground forces, with one Ecuadorian officer and 50 soldiers wounded (as opposed to six and 69 for Peruvian forces). Additionally, Peru had captured five Ecuadorian officers and 80 soldiers.

At this point, having humiliated the Ecuadorian defenses, Peruvian forces halted their advance and, from all accounts, were content with their achievements. This is just as well, historically, as for all intents and purposes, nothing lay between them and Guayaquil, Ecuador's major port and site of many official national offices, even though

the capital was nominally Quito. They immediately set about reassuring the Ecuadorian citizens in the occupied areas that it was safe to return to their homes and businesses (although these had been ransacked, the Peruvians alleged, by retreating Ecuadorian forces) and steps were launched to improve roads and communications in the area - doubtless a Peruvian gambit to show the Ecuadorian residents of the area that they would be better off under Peruvian administration.

This was not the end of the campaign, however. CAP aircraft are known to have bombed and strafed the town of Tenguel on September 15th, targeting, amongst other things, the United Fruit Company (a U.S. firm) offices there at 1030hrs. (4) Two aircraft had flown low over both Pagua and Tenguel, dropping at least eight bombs and machine gunning both towns. Three civilians were killed and at least three wounded in the puzzling attack. Later that day, at 1430 hrs., at least two more CAP aircraft attacked a building with the U.S. flag clearly flying at staff in front of it, dropping four bombs, apparently targeting the building in question intentionally, following which they strafed the building. During the same attack, one of the aircraft strafed a commercial launch, the Pagua, which was lying in the river about two miles from Tenguel, wounding one sailor. The entire Ecuadorian garrison at Tenguel consisted of one Sergeant and six troops. At 1700 hrs., the town was once again attacked, and several more civilians were wounded.

U.S. observers in Guayaquil speculated that the Peruvian attacks on these towns were in the nature of a "trial balloon" to see if they could get away with it and, if so, would proceed on to take Guayaquil and dictate terms to Ecuador. It was further suggested that Peru had actually planned the entire campaign more than a year previously. This incident apparently took place after the U.S. and several Latin American nations had brokered a cease fire and observers had departed the zone, and has been only vaguely reported.

Throughout this unhappy experience, although

appearing as a well-oiled machine to outside observers, the CAP had in fact not been happy with General Ureta's handling of their forces during the campaign. During the large offensive across the Rio Zarumilla on July 23rd, CAP aircraft, principally the seven new NA-50s (5), older Caproni Ca 114s and Northrop 8A-3Ps, had been obliged to fly dangerously close to the ground due to the very low ceiling that prevailed in those regions during that time of the year. This has frequently been cited as the actual cause for the celebrated loss of Tte. Jose Quiñones that day in XXI-41-3 Pantera. This loss was part of a four-aircraft element of NA-50s, led by Tte. Comdte. Alberti, with Tte.'s Fernando Parraud and Quiñones and Alf. Manuel Rivera in company. They had taken off from Tumbes at 0750 to attack Ecuadorian gun positions near Quebrada Seca. Arriving over the target area, they sustained fairly intensive anti-aircraft fire from 20 mm Breda anti-aircraft positions and Ecuadorian machine gun positions. Quiñones was hit by gunfire after he had made an attack pass below 300 meters to destroy it and, as he departed from the range of the anti-aircraft weapons, his engine failed, apparently as a result of hits. With little time and no options, the stricken aircraft reportedly turned back towards the battery that he believed had hit him and, with his underwing bombs still attached, from all appearances intentionally dived into the position. Ecuadorian sources claim that the downing of this aircraft was due to the action of Capt. Aníbal León using a ZB machine gun.

In a previously unreported action, the Ecuadorian patrol vessel Atahualpa claimed the downing of a CAP Caproni Ca 114 in the Golfo de Jambelí. Gunner Eleuterio Chalá is credited with the shoot down, in plain view of the populace of nearby Balzalito.

The CAP finally dispatched a special staff to advise General Ureta in the proper use of his air assets, and this vastly improved the effectiveness of the CAP units - and no subsequent losses were sustained.

Daniel P. Hagedorn (SAFCH #394) USA.

Notes

(1) The Ca 111s flew as bombers, transports and ambulance aircraft during the campaign. The Ca 310s were assigned in threes to the XV, XVI Escuadrons, 20, 21, 23 and 24 Division, and consequently had their aircraft coded XV-20-1, XVI-23-1 etc. The Northrop 8A-3Ps, 10 of which had been delivered by June 1939, were assigned to the XXXI Escuadron de Informacion Strat., 91 and 92

Division, and thus their aircraft were coded XXXI-92-1 etc. It is not clear, however, exactly which of these saw action during the war.

(2) Some sources give the date of the loss as the 6th.

(3) Other bomber and reconnaissance Escuadrillas known to have taken part in the war, but about which little or nothing has surfaced, were 105a, 23a and 13a, which may have

been Ca 111 units.

(4) United Fruit owned about 100,000 acres of land between the Pagua and Gala rivers and exported bananas from plantations there.

(5) Not NA-50As, as has been so frequently reported. These were msn's 50-948 to 953, initially coded as XXI-41-1 to XXI-41-7, and had been delivered in March 1939.



In an urgent series of aircraft acquisitions in the 1932-1935 period, Peru identified the Douglas O-38P as essentially a 'state-of-the-art' multi-purpose type, with the additional benefit of being a proven service series, in the form of the various versions of the O-38 used by the US Army Air Corps. Six were acquired by December 21, 1932, capable of being fitted with either wheels or floats and the type saw action against Colombian aircraft during the Leticia border dispute of that period. One survived by October 1941. The Peruvian aircraft mounted 640hp Wright R-1820-Fs and wore various distinctive Peruvian unit codes, including 1/2-VG-1 to 1/2-VG-6.



The only modern types in the small Ecuadorian inventory were three Curtiss-Wright 19R all-metal light combat aircraft, which were hastily ready for service at the front. These included the first example received, named 'Patria'.



During the mid-1930s, the Curtiss-Wright Export Corp. virtually re-equipped the rejuvenated Ecuadorian air arm, and at least nine Curtiss-Wright Model 16E basic trainers - sometimes cited in trade literature as "Curtiss-Wright Standard Trainers" - were acquired between August 1935 and June 1936. Attrition in the rough-and-tumble business of creating an air arm from nothing was high and, by August 1936, five of the nine had been wrecked. Initially issued serials 10 to 18, Curtiss performed a hat trick by rebuilding the wrecked aircraft in-country and these were issued 'new' serials, including 20, and 23 top 25. Some remained in service as late as August 1944 when they were finally replaced by Lend-Lease PT-19s.



Taken at the factory, one of the modern North American NA-50s acquired by Peru was an NA-16 single-seat fighter bomber derivative. Note the bomb racks under either wing just outboard of the main gear.



Fokker C.X, by Edwin Hoogschagen. Warplane #5. 48 A-4 pages, soft cover. Text entirely in English. 97 photos, 10 color profiles. Published by Lanasta: www.lanasta.com. info@lanasta.com. €13.95.

The C.X was the last in a long line of elegant single-engine military biplanes from the Fokker factory. Designed for use in the Netherlands East Indies, the prototype made its first flight in 1935. Fourteen aircraft were ordered by the NKIL and they served as trainers until the Japanese invasion in 1941. The homeland air force, the LVA, ordered 20 C.X and they participated in the defense of Holland in 1940. However, the longest serving C.X were the 39 Finnish aircraft that participated in the Winter War and the Continuation War. The last operational C.X was a Finnish aircraft that crashed in 1958.

The chapters are:

“Introduction” Development of the prototype. 3 pages, 7 photos, one color profile (PH-AKIJ).

“Operational use in the Netherlands Indies” (KNIL) 2 pages, 5 photos, one color profile (FCx453). Powered by the Rolls Royce Kestrel II inline engine, the 14 a/c were serialised FCx450 to 463.

“Orders for the LVA” 9 pages, 20 photos, 2 color profiles (701 & 708, both in Dutch roundels. 20 a/c serialised 700 to 719.

“At war” 4 pages, 11 photos, one color profile (714 in Dutch orange triangles.

“A foreign customer” 22 pages, 47 photos, 3 color profile (FK-79, FK-59 & FK-86 with Finnish swastikas). Powered by the Bristol Pegasus IV radial engine, the 39 a/c were serialised FK-78 to FK-

115. 4 built by Fokker and 35 built by VL in Finland.

“After the war” 2 pages, 4 photos, one color profile (FK-111 with Finnish roundels).

“The ultimate variant” one pages, one photos, 2 color profiles (Dutch 750 & Spanish Republican). A one-off with a Hispano-Suiza YCRS inline engine

“Legacy” one page, 3 photos of fuselage of FK-113 on display in Netherlands.

“Construction” 4 pages, 3 photos of a/c under construction, 2 technical drawings, 2 tables [Fokker production (39), license production (36)], and technical data.

The only thing I missed a table providing the histories of the individual C.X. The author must have collected most of this information during his research. Perhaps one of our Dutch or Finnish member can provides this for SAFO.

Highly recommended.



Las Operaciones del Cuerpo Aeronáutico del Perú durante el Conflicto de 1941, by Amaru Tincopa Gallegos. 56 A-4 pages, softbound. (2011) € 14.00 plus postage. Published by Artipresse, 119 rue Anatole France, 93170, Bagnolet, France. Email: airmagazine@rocketmail.com.

This publication covers the aerial aspects of the little-known conflict between Peru and Ecuador from the Peruvian point of view (with the text entirely in French). It begins with a short background of the conflict followed by a description of the order-of-battle of the opponent's air assets.

The coverage of the aerial combat begins on page 10 with the action on 5 July 1941, and continues until page 44 with the end of the conflict on 25 September. The presentation is a bit unusual in that each day's operations are covered by subsections covering the activities of individual Peruvian unit.

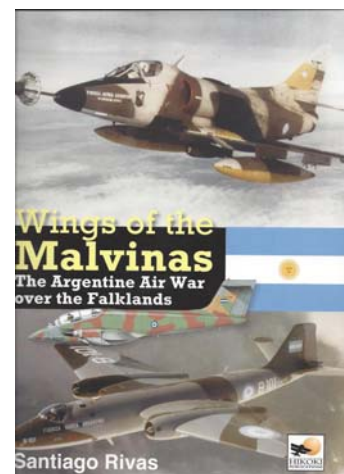
There are 84 photos – all of Peruvian subjects except for three of Ecuadorian a/c [CW-16E and CW-19R (2)]. These photos are well reproduced and all appear to be from the events of the time. There are also four maps further defining the actions.

There are 23 beautiful color profile drawings [Fairey Fox IV (2); Curtiss Cyclone Falcon (3); Junkers Ju 52 (2); Caproni Ca.111 (3), Ca.310 (2), & Ca.135 (2); North American NA-50 (3); Douglas 8A-3P (5); and Grumman Goose]. The NA-50, 8A-3P, and the Goose also have a color plan-view drawing each.

This book is important addition to the literature on the wars in Latin America. It is too bad it does not include an English translation, for it would have a much broader appeal.

However, this book is an important addition to the literature of Latin American aviation and is recommended to anyone who would not be intimidated by the French text.

[Editor's Note: A detailed description of this conflict can be found elsewhere in this issue of SAFO.]



Wings of the Malvinas: The Argentine Air War over the Falklands, by Santiago Rivas, 12"x9", 383 pages in English, hard-cover, profusely illustrated with a combination of color and black-

and-white images as well as color side-view drawings, many detailed maps, tables and annexes, Hikoki, 2012, ISBN 9 781902 109220, \$56.95.

Although there have been a number of excellent books describing the conflict known variously as the Falklands, Malvinas, or South Atlantic War, this 1982 conflict must certainly go down in the annals of warfare as one of the most unusual of all time.

Extensive coverage has been devoted to the British operations and aerial component, both in monographs and serial publications, with only peripheral details on the Argentine armed forces that were so central to the entire epoch.

Now, Santiago Rivas has produced a simply stunning, superbly detailed and illustrated examination of the Argentine operations, which will certainly stand as the premiere work on this subject and without peer. His approach is, at first glance, rather curious but, on reflection, provides an organization that is very nearly military in its construction.

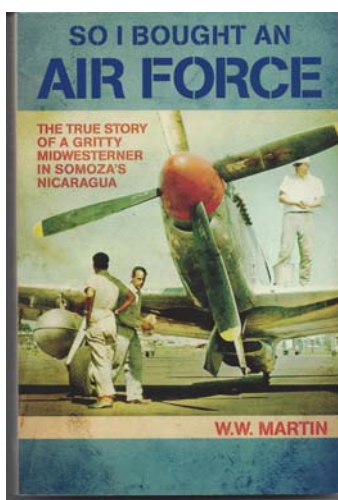
The narrative begins with an excellent introduction to the political forces which motivated the conflict which, largely misunderstood in most English-speaking nations, is both balanced and even-handed. He devotes a few pages to the history of each the major branches of service. Starting, properly, with the Argentine Air Force (Fuerza Aérea Argentina) he describes, in major command order, the Order of Battle of each as of 1982, with appropriate illustrations. Some of these are just stunning, although not without a few typographical glitches (a Caudron G.3 on page 24 is captioned as a Caudron G.2). A color, in-flight images of four camouflaged Gloster Meteors on page 26 is wonderful and a color photo of a Naval Vought F4U-5N aboard the ARA Independencia on page 32 is a delight.

He includes a remarkable number of first-hand accounts, the majority of which are from Argentine crews, but which also include many from their British counterparts - including numerous transcripts of radio communications, which are little short of gripping. These speak, as in every conflict, of courage, resolution, fear and acceptance, and give us a glimpse of the professionalism and competence of the overwhelming majority of the Argentine pilots and crews - regardless of the politics of the situation - that enrich and humanize the

narrative. The overwhelming majority of the images he includes are almost certainly published for the first time, although in some instances, more expansive captions might have been welcome.

The book abounds with surprises and has a useful index, as well as bibliography and a superbly researched Appendix 2 giving individual aircraft histories of every participating Argentine aircraft, which will prove a boon to researchers.

This book is excellent value for the money and SAFO members should support this outstanding work. It cannot be more enthusiastically endorsed. Dan Hagedorn (SAFCH #394), USA.



So I Bought an Air Force: The True Story of a Gritty Midwesterner in Somoza's Nicaragua, by W. W. Martin, 6'x9', 259 pages in English, 47 color photos, nine b/w photos, published by Two Harbors Press, Minneapolis, MN ISBN 978-1-938690-36-5, \$16.95

At the outset, I must report that I sincerely wish that Will Martin had crafted this extremely interesting and well-written account back in the 1980s, before John Dienst and I attempted to assemble *Aerofax Datagraph No.1* on F-51 Mustangs in Latin America! It would have certainly informed us that this entire episode was even more convoluted and fraught with administrative pitfalls than we could possibly have imagined at the time!

Any student of the aviation history of Latin America should include a copy of this study in his "required reading" preparatory to engaging in further research, especially in the volatile and highly personal brew that was politics

and society in 1950s and early 1960s Central America.

This is, of course, a tale of the nearly legendary deal that Will Martin, doing business as MACO, concluded with Somoza and his air force for the transfer of nearly all remaining P-51D Mustangs, Republic F-47N Thunderbolts and Beech C-45s remaining in the FAN inventory as of 1963 - in exchange for used North American T-28As and Douglas B-26 Invaders.

The book is well illustrated, but primarily with images of the aircraft virtually stripped of FAN markings and preparatory to, enroute, or after returning to the US - although there are certainly sufficient glimpses of tantalizing markings details to at least add to the previously existing pool of knowledge relating to these poorly documented aircraft. On page 154, for example, one can see the nose of a former FAN P-51D which clearly still retains a portion of a 'sharks-mouth' just under the anti-glare panel.

Although the book abounds with details on the fate of many of these aircraft, and expands on others (including the last of the Costa Rican F-51Ds), a definitive table of the aircraft and serials involved - both those being acquired and the T-28s and B-26s being provided - would have been most welcome. However, it seems apparent that Martin was left with little choice than to accept the FAN's administrative accounting in attempting to document the aircraft that he acquired once they reached the U.S., with the result that, even to this day, the genuine previous identities of some of the surviving aircraft are highly suspect.

Above all else, this book reminded me of the reality of ethnocentrism, and the nearly universal naïveté that most Norte Americanos (including the undersigned) and Europeans engaged when encountering our Central American neighbors "up close and personal" for the first time as of the early 1960s. The book helps us understand all of this, within the aviation history microcosm, and to realize that the study of aircraft and aviation history requires empathy and cultural awareness to even begin to understand the stage upon which these events occurred. I am not sure that this was Will Martin's intent in setting down his experiences and adventures, but the benefit is certainly there.

Dan Hagedorn (SAFCH #394), USA.



Alenia Aermacchi: Celebrating 100 Years of Italian Genius, Innovation and Achievement. Aviation Classics #20. Published in association with Alenia Aermacchi. www.aviationclassics.co.uk. (132 pages) £ 7.99.

This is another great issue from the publishers of Aviation Classics. It differs from the earlier issues; instead of covering one aircraft type, it covers the history of the companies that went into forming the present-day Alenia Aermacchi. In addition to describing the corporate histories, the aircraft built by these each company are described by a biography of the designer, the number built, and the export customers. Photos are provided for many aircraft, both the familiar and the exotic.

The text is divided into chapters covering WW1, the interwar years, WW2, and the post-war years. To give an idea of the contents, a listing of the chapters and their subsections follows:

“The genesis of Alenia Aermacchi: A Company Family Tree” “Giulio Macchi: Visionary Aviation Pioneer”

“First World War” (1) “Società. Anonima Macchi-Nieuport”. (2) “Fiat and Società Italiana Aviazione (SIA)” (3) “Ansaldo”. (4) “Società Anonima Costruzione Aeronautiche Ottotino Polmilio & Co” (5) “The 1918 Flight over Vienna”

“Interwar Years” (1) “Fiat – consolidation and expansion” (2) “Officine Ferroviarie Meridionali and Industrie Aeronautiche Romeo” (3) “Macchi-Nieuport to Aeronautica Macchi: Flying boats and light aircraft –

a golden age” (4) “The 120 Rome-Tokyo record flight” (5) “Ansaldo – fighters and Fiat” (6) “Industrie Meccaniche Aeronautiche Meridionali – IMAM” (7) “The Great Racers: The Schneider Trophy”

“The Second World War” (1) “Aeronautica Macchi – fighters, fighters, fighters” (2) “Fiat: Bombers, fighters and transports” (3) “IMAM: Ground attack, fighter and liaison”

“Postwar rebuilding” (1) “Fiat – transports, jets and licences” (2) “The MB-308 of 1947” (3) “Aeronautica Macchi: Trainers, lights and licences” (4) “IMAM to Aerfer: Jet developments”

“Jet success” (1) “Fiat and the G.91” (2) “The Aermacchi MB.326” (3) “Props and joint production” (4) “From the Starfighter to Aeritalia”

“Flagship trainer” (1) “The MB.339” (2) “The Frece Tricolori” (3) “Peruvian MB.339s” (4) “Argentine MB.339A in the Malvinas War”

“International programmes and consolidation” (1) “Tornado and transports” (2) “AMX International and the Do 328” (3) “Acquisitions, ATR and the final frontier” (4) “Yakovlev, SIAI-Marchetti and Venegono” (5) “Alenia: Transports & Typhoon”

“Into the 21st century: Alenia Aermacchi is formed”

“Survivors: Aermacchi, Fiat and other aircraft on display”.

This issue is invaluable resource for unraveling the alphabet soup of Italian aviation companies. It’s a bargain at £7.99 ordered directly from the publisher at www.aviationclassics.co.uk.



#21 Lockheed Martin: Celebrating 100 years of the famous aircraft manufacturer – from the ‘G’ to the F-35 and beyond. Aviation Classics #21. 132 pages. www.aviationclassics.co.uk. £7.99.

Presented in Aviation Classics’ usual outstanding combination of well-research text and profusely illustrated with photos, this issue covers the history of Lockheed-designed aircraft from the Loughhead brother’s first aircraft to the present day Lockheed Martin company. It traces the formations, mergers, and bankruptcies while describing the many aircraft that came from the design offices including both the well known and the obscure.

The chapter headings, along with a brief summary of their contents, will give a good idea of the quality and depth of the coverage:

“From the Alco Hydro-Aeroplane Company to Lockheed” takes the story up to the Harpoon and Lodestar of WW2 (10 pages, 29 photos).

“Tow Lightning” mostly about the USAAF WW2 glider program explaining the advantages of the P-38 over the C-37 as a tow plane and the dangers of Waco CG-4A’s nose clamshell door (6 pages, 19 photos).

“The large and the small of it” the Little Dipper, Big Dipper, Saturn, & Constitution (2 pages, 7 photos).

“Sheer elegance” the Constellation in war and peace w/ table of military designations (4 pages, 10 photos).

“Test flying the Lockheed P-80” mostly about the men who tested, and sometimes died, testing early jet aircraft (12 pages, 25 photos).

“Shooting Stars entering the jet age” the P-80, F-94, T-33, and T2V-1 w/ table of P-80 designations (4 pages, 11 photos).

“Long range record setter” the P-2 Neptune w/ table of designations (4 pages, 11 photos).

“The ultimate interceptor” the F-104 Starfighter w/ table of F-104 variants & list of 15 foreign operators (6 pages, 17 photos).

“Airliner to submarine hunter” the L188 Electra and P-3 Orion w/ table of P-3 designations (4 pages, 9 photos).

"Transport for the world" the C-130 Hercules w/ table of variants (8 pages, 25 photos).

"High altitude Dragon Lady" from the U-2 to the TR-1 w/ table of variants (2 pages, 5 photos).

"Helicopter development" CL-475 to AH-56 Cheyenne (2 pages, 6 photos).

"The big jets" C-141 StarLifter and C-5 Galaxy w/ table of variants (4 pages, 10 photos).

"The world's first cabin business jet" the JetStar w/ table of variants (2 pages, 5 photos).

"It's going how fast?" the Blackbirds: A-12, M-21 & SR-71 w/ table of variants (4 pages, 11 photos).

"Oddities and one offs" XFV-1, CL-760, AL-60, XV-4A, & L2000 (2 pages, 5 photos).

"Small and silent" QT-2, Q-Star, and YO-3A Quiet Star w/ table of Quiet Star variants (2 pages, 6 photos).

"The last airliner" L-1011 TriStar w/ table of variants (4 pages, 8 photos).

"Carrier based sub hunter" the S-3 Viking w/ table of variants (2 pages, 4 photos).

"The father of stealth" Benjamin Robert Rich (2 pages, 4 photos).

"Night Hawk" from Have Blue to F-117 (4 pages, 11 photos).

"Mergers for strength" General Dynamics and Martin Marietta join the force (2 pages, 4 photos).

"Developing on success" the F-16E/F Desert Falcon w/ table of designations (2 pages, 4 photos).

"Future trainer" KAI T-50 Golden Eagle w/ table of variants (2 pages, 4 photos).

"It's not a fighter, it's the fighter" F-22 Raptor (3 pages, 6 photos).

"The future of air power" F-35 Lightning II (6 pages, 16 photos).

"Transports of delight" the future: X-55 and the quiet SST (one page, 2 photos).

"Unmanned Systems" (2 pages 10 photos).

"Leading into the future" Hybrid Airship, ISIS Project, X-56A & Transformer (2 pages, 6 photos).

"Survivors". (3 pages, 28 photos).

Some random thoughts

The chapters on such well-known aircraft as the F-104, C-130, P-3, etc. provide only a brief summary. The editor promises that these aircraft will each

receive a full treatment in future editions of Aviation Classics.

The history of the Loughhead brothers aircraft up to end of WW2 provides information on such aircraft as the Alcor C.6.1, the Quiet Star, and the Air Rover Starliner.

I was pleased to see that little-known Lockheed aircraft as the AL-60 (license-built in South Africa as the Kudu) get the attention they deserve.

There not much in this issue on Lockheed aircraft with the small air forces: However, the number of countries using each type is mentioned. The use of Lockheed aircraft in the small air forces will hopefully be covered in future issues. An outstanding exception in this issue is the chapter on the Korean Aerospace Industries' KAI-50 Golden Eagle.

At times, the text seems to have been written by the Lockheed-Martin Publicity Office. However, this is forgivable since this issue was prepared "in association with Lockheed Martin without whose help collecting all this information would not have been possible."

This issue of Aviation Classics is highly recommended and is a bargain at £7.99. A few copies of Lockheed Martin are available from the SAFCH Sales Service for \$14.00 plus postage.



Douglas DC-3/C-47/Dakota.
Aviation Classics #22. 132 pages.
www.aviationclassics.co.uk.
£7.99.

Another superbly researched, written, and illustrated issue from Tim Callaway.

"Douglas Aircraft Company" 8 pages & 34 photos on the history of the company up to the DC-1.

"In the Beginning" 4 pages & 12 photos on the development and use of the DC-1 in the Spanish Civil War.

"Commercial viability and military developments" 6 pages & 30 photos on the DC-2 and B-18 Bolo.

"Enter the legend" 5 pages & 19 photos on the development of the DC-3.

"Pratt and Whitney and the R-1830" 8 pages & 22 photos on the development of dependable radial engines.

"Ready for war" 6 pages, 18 photos, & 5 color profiles (RAF, Italy, Ecuador, Papua New Guinea, & USAF) on wartime variants & the B-23 Dragon.

"Licence built Dakotas" 4 pages & 10 photos of the Nakagima L2D & Lisunov Li-2.

The next 42 pages describe various wartime and postwar experiences: "Operation Wildhorn" Dakota flights into occupied Poland. "The Dakota as a glider tug in Europe" "American paratroop forces on D-Day" "Operation Market Garden with the 101st"

"Postwar plethora" 2 pages, 4 photos, & 2 color profiles on postwar passengers, cargo and firefighting.

"A Dakota's tale" 4 pages, 12 photos, & 3 color profiles of a DC-3 with the CNAC (China National Aviation Corporation).

"Blockade busters" 6 pages & 19 photos of the aircraft and airmen who participated in the Berlin Airlift.

"Spooky – the AC-47" 4 pages & 15 photos on the development of the gunship during the Viet Nam war.

"The Super DC-3" 2 pages, 6 photos, & one color profile on development of the Super DC-3.

"New power" 4 pages & 13 photos on the Turbo Dak & BT67 with details and photos (South Africa, El Salvador, & Colombia) of the a/c with the SAAF Africa and with Latin America air forces.

"Inside the legend" 8 pages, 52 photos, & one color profile (Royal Aircraft Establishment) of exterior and interior photos of the Battle of Britain Memorial Flight's Dakota.

"Survivors" 7 pages & 22 photos of preserved DC-2, B-18, B-23, & DC-3/C-47.

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"I was interested by the letter from Helio Higuchi regarding my article on the Mosquito Abroad (SAFO #146) and his statement that the Mosquitoes and Beaufighters did not take part in the attack on Luperon. This is contrary to a number of accounts, not least of which by Howard McClelland (an alias I believe) who was an 'advisor' with the Mosquitoes at the time and the CIA's records of the action. The two Mustangs are mentioned as having attacked later I agree, but my understanding is that the PBY had run into the sandbank while avoiding the first attack and had been 'damaged' (to what extent remains unclear) by the initial Beaufighter and Mosquito attack before the Mustangs arrived.

"I must admit I had heard there were problems with the British advisors, and Mr Ajuz's contention has a ring of truth, although to the extent of remaining permanently drunk is hardly credible in the circumstances as the aircraft are known to have flown. It is interesting to note that the Brazilian mercenaries also had a reputation for enjoying 'wine, women and song', so it seems that this is one of those occasions where it depends on who you believe. The truth is probably somewhere in the middle as usual and everybody had a hand to some extent. I wish I had a definitive and reliable source of information but as time passes this seems unlikely to emerge."

Tim Callaway, UK.

"SAFO#146 finally came to the top of my 'required reading' stack, and I wanted to jot off just a few comments while I have the time.

"In Tim Callaway's article on 'Mosquitos Abroad,' under the section on the Dominican Republic, I want to clarify this a bit if I may. The AMD acquired only five Mosquito F.B.VI's between 18 August and 6 October 1948. I have never heard of a sixth aircraft, which Tim lists as a B.Mk.35. The F.B.VI's were formerly RAF TE612, TE909, TE822, TE873, and RF939. They were initially serialised 301 to 305, and they were later re-serialised 2101 to 2105. Then there were the three T.Mk.29s from Canada, as he states, but these were delivered as early as September 1951, not

February 1952. All survivors were withdrawn from service due to 'severe corrosion and lack of parts' by June 30, 1954."

Dan Hagedorn (SAFCH #394), USA.

"In response to Ted Koppel's letter about the markings on the Mexican Bristol aircraft, it appears that the Mexican Air Force was going to change to that type of marking, but due to unknown reasons it didn't happen and the Bristols keep those markings until the end of their service life when they were retired around 1935."

Santiago A Flores (SAFCH #588), USA.

"Unfortunately, in Part 2 of my article on the Spanish Boeing some corrections (after my revision on your adjusted text-file) were not reported. Also, a major mistake appears in the caption for the CR.32 color profile: this is not an aircraft shot down by the Boeing, but it is the one flown by pilot Galli who shot down the Boeing on 30 October 1936."

Alfredo Logoluso, Italy.

"Our Spanish-speaking members will be glad to know that Pierre Challier's biography of José Falcó (SAFO #146) has been translated from French into Spanish. It is published by Editorial Milenio and cost 16.35 Euros. ISBN 13: 978-84-9743-580-2."

Tom Sarbaugh (SAFCH #497), USA.

"Just when we start fooling ourselves that there is nothing new to learn in the world of aviation along comes Frits Gerdessen with his excellent article on early Dutch military aviation with it's, to me, previously unseen photos. I can hardly wait for the follow up! We must also thank R. Ernst for his concise guide to Czech markings, now all we need are models of the aeroplanes! All in all, #147 is a fascinating issue - and no helicopters!"

Malcolm Barratt (SACH #1716), UK.

"Thanks for the review, in SAFO #147, of my book. *Avioes Alemaes no Brasil*. If any members contact you about how to obtain the book, the best option is to buy it directly from me. It appears the

publisher is not 'happy' about sending orders overseas."

Sergio Luis dos Santos (SAFCH #1202), Brazil. <loigres@ig.com.br>

[Editor: Denys Voaden (SAFCH #1483) sent five b&w photos he took at a Mongolian museum in 1997. These photos show Mongolian Polikarpov R-1, R-5, U-2, I-16, and Yak-9. The aircraft hang from the ceiling and were photographed from below in poor lighting conditions and are unfit for publication. Little is seen of the markings, but the R-1 and Yak-9 carry red stars at least on the fuselage and vertical tail. However, the R-5 carries the Mongolian soyombo on the lower surfaces of the wing, and the U-2 carries the soyombo on the fuselage and vertical tail.]

[Ed: In answer to my question about the accuracy of the markings on the Mongolian Polikarpov R-5 illustrated in SAFO #27, Denys Voaden sent the following.]

"Photographs of Mongolian R-5s are scarce. There are some folders of large paintings/photographs on the history of Mongolian army and air arm. These illustrations by 'artists' are usually very sloppy.

"(1) Demberel, in 1936, flew an R-5 against Japanese border intruders. The picture shows a biplane (no u/c!) with a 5-point red star under lower wing and a yellow soyombo at mid-fuselage.

"(2) Shagdarsuren in an R-5 (with uncowed radial engine!) with red star under wing, yellow soyombo on rear/mid fuselage, and no tail marking.

"(3) A 2001 book on 'The Armed Forces of Mongolia' has a photo of an R-5 (1930s) with the red star under the wing and a numeral on the rudder. The fuselage is not clear in photo.

"(4) Another folder with photographs of Mongolian aircraft has R-5s (no guns, therefore perhaps for training?) that have red stars with white edging on rear/mid fuselage and on the rudder. Personnel are Mongols, but could be in USSR, but I am inclined to think in Mongolia as all the other pix are there."

Denys Voaden (SAFCH #1483), USA.



Armed with two PL-7 air-to-air , F-7N 3-7514 wears its original delivery camouflage.



F-7 instructor pilots: Standing from right, Nasser Darayee, a former F-5 pilot, Col. Mohammad Zadeh, Mohammad Bagher Gordan. Seating first from right, Amir Aram an F-5 ace in Iran-Iraq war, third from right is Abbas Hazin, commander of TFB-8, Isfahan and an F-14 ace.



7 pilot, Mohammad Bogher Gordon, who was killed in an IRAn-140 crash at Shalin-Shahr. [ganj-e-ir]



FT-7N 3-7706 landing at TFB-5 after a training sortie.



Iranian FT-7N with covered serials at TFB-4 open house 2012.



Iranian F-7N 3-7524 still in delivery camouflage at TFB-1 Mehrabad during an open house. (Liam F. Devlin)